HITACHI

No. 0207

32LD7200

SERVICE MANUAL
MANUEL D'ENTRETIEN
WARTUNGSHANDBUCH

CAUTION:

Before servicing this chassis, it is important that the service technician read the “Safety Precautions” and “Product Safety Notices” in this service manual.

ATTENTION:

Avant d’effectuer l’entretien du châassis, le technicien doit lire les «Précautions de sécurité» et les «Notices de sécurité du produit» présentés dans le présent manuel.

VORSICHT:

Vor Öffnen des Gehäuses hat der Service-Ingenieur die „Sicherheitshinweise“ und „Hinweise zur Produktsicherheit“ in diesem Wartungshandbuch zu lesen.

Data contained within this Service manual is subject to alteration for improvement.

Les données fournies dans le présent manuel d’entretien peuvent faire l’objet de modifications en vue de perfectionner le produit.

Die in diesem Wartungshandbuch enthaltenen Spezifikationen können sich zwecks Verbesserungen ändern.

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

Colour Television

March 2005

CAUTION FOR SAFETY

Please read this page before repair the monitor.
This page explains to following items for keep the safety of set and prevent to accident during repair work.

- **We explain by symbol at happen the damage or injury when took wrong repair.**

⚠ **Warning**	This symbol means **"possible to die or heavy damage"**
⚠ **Caution**	This symbol means **"possible to damage or something will break"**

- **We made the symbol as below, which are kind of following items.**

⚠	This symbol means **"CAUTION"**	❗	This symbol means **"MUST"**
⚡	This symbol means **"POSSIBLE to ELECTRIC SHOCK"**	🛇	This symbol means **"DO NOT"**

⚠WARNING

■ Should be follows to instructions.

⚠ We indicates to cabinet, chassis and parts by label, which are special attention part. Please follow to note and [Safety Instructions] of User's Manual.

■ Prevent the electric shock.

⚡ Please take care during working because monitor has high voltage part and power supply part.
Possible to die if you tough to these place by miss take.
Please disconnect power plug during overhaul, reassemble or change parts.
You will die or take damage by electric shock if you touch to live part.

■ Use recommended components.

❗ Please use to same characteristic component, which is same as previous for your safety and keep reliability especially marked by ⚠ in parts list and circuit diagram.
It is reason of electric shock or fire if you use non-recommended component.

■ Should be kept same style of wiring or component.

❗ Monitor uses tubes or tapes, which made by insulator, and some components are keep distance from surface of PWB for safety.
Internal leads kept from hot part or high voltage part by clamper or styling, so please return to original condition for prevent to electric shock or fire.

■ Should be done safety check after finished.

❗ Every part (removed screws, component and wiring) should be returned to previous condition.
Check around repair position for make damage by miss take and measure the insulated impedance by meg-ohm meter.
Confirm the value of impedance, that value is more than 4M ohm.
It is reason for electric shock or fire if that value is less than 4M ohm.

■ Nobody can check and repair to the code and combination circuit of HDCP.

🛇 Never remove the shield case, which is assembled to the code and combination circuit of HDCP.

PRECAUTIONS

How to clean the LCD screen panel of the monitor

Before cleaning the monitor, turn off the monitor and disconnect the power plug from the power outlet.

To prevent scratching or damaging the LCD screen face, do not knock or rub the surface with sharp or hard objects. Clean the screen with a soft cloth moistened with warm water and dry with a soft cloth. If it is not enough, then use a cloth with mild detergent. Do not use harsh or abrasive cleaners.

How to clean the cabinet of the monitor

Use a soft cloth to clean the cabinet and control panel of the monitor. When excessively soiled dilute a neutral detergent in water, wet and wring out the soft cloth and afterward wipe with a dry soft cloth.

Never use acid/alkaline detergent, alcoholic detergent, abrasive cleaner, powder soap, OA cleaner, car wax, glass cleaner, etc. especially because they would cause discoloration, scratches or cracks.

1. Features

Large-screen, high-definition LCD display panel

The 32-inch LCD display panel, with a resolution of 1366 (H) x 768 (V) pixels, creates a high-definition, large-screen(aspect ratio : 16:9) and low-profile flat display. Free from electromagnetic interferences from geomagnetic sources and ambient power lines, the panel produces high-quality display images free from color misconvergence and display distortion.

High Performance Digital Processor

A wide range of input signals can be handed,including composite, component,and HDMI.High Definition Digital Processor creates the fine-textured image with dynamic contrast. In addition, it corresponds to a broad array of personal computer signals, from 640 x 400 and 640 x 480 VGA to 1600 x 1200 UXGA.(Analog Input)

Easy-to-use remote control and on screen display system

The remote control included eases the work of setting display controls. Further, the on-screen display system, displays the status of signal reception and display control settings in an easy-to-view fashion.

Connecting to an Audio Visual Device

- Three SCART terminals, a composite/S Terminal*1, a component terminal*2, a HDMI terminal have been added.
  A composite video output terminal is also provided as a monitoring output.
  *1 A composite/S terminal = A side input
- A wide range of devices other than personal computers can also be connected.
- A RGB input is possible to switch to component signal from the Menu screen.

Power Swivel Feature

It allows to turn the LCD display left or right within ± 30 degree using the remote control.

2. Specifications

Panel	Display dimensions	Approx. 32 inches (698 (H) x 392 (V) mm, diagonal 800mm)
	Resolution	1366(H) x 768 (V) pixels
Net dimensions (excluding Speakers/Stand)		1015 (W) x 618 (H) x 340 (D) mm
Net weight (excluding Speakers/Stand)		25.0kg
Ambient conditions	Temperature	Operating : 5˚C to 35˚C, Storage : 0˚C to 40˚C
	Relative humidity	Operating : 20% to 80%, Storage : 20% to 90% (non-condensing)
Power supply		AC100 - 240V, 50/60Hz
Power consumption/at standby		158W / <1W ; <2W (When DVI)
Audio output		speaker 12W + 12W (6Ω)
(RGB input)		
Input terminals		RGB1 DVI input terminal (DVI-D) RGB1 audio input terminal (3.5mm Stereo Mini Jack) RGB2 analog RGB input terminal (D-sub 15-pin) RGB2 audio input terminal (3.5mm Stereo Mini Jack)
Input signals		0.7 V/1.0 Vp-p, analog RGB (Recommended Signal) 480i, 576i, 480p, 576p, 1080i/50, 1080i/60, 720p/50*[1], 720p/60
Sync signals		H/V separate, TTL level [2KΩ] H/V composite, TTL level [2KΩ] Sync on green, 0.3 Vp-p [75 Ω]
(Video input)		
Input terminals		AV1: composite video/S video/L/R audio input terminal (SCART) AV2: composite video/RGB/L/R audio input terminal (SCART) AV3: composite video/RGB/L/R audio input terminal (SCART) AV4: composite video/Y/PB/PR video/L/R audio input terminal (RCA) AV5: composite video/S video/L/R audio input terminal (RCA) AV6: HDMI input terminal
Input signals		AV1: PAL, SECAM, NTSC3.58, NTSC4.43 AV2: PAL, SECAM, NTSC3.58, NTSC4.43, RGB AV3: PAL, SECAM, NTSC3.58, NTSC4.43, RGB AV4: PAL, SECAM, NTSC3.58, NTSC4.43 AV4: 480i, 576i, 480p, 576p, 720p/50, 720p/60, 1080i/50, 1080i/60, AV5: PAL, SECAM, NTSC3.58, NTSC4.43 AV6: HDMI input signal
Output Signal		OUTPUT (MONITOR): composite video monitor-output terminal (RCA) OUTPUT (MONITOR): L/R audio monitor- output terminal (RCA) OUTPUT (HEADPHONE): L/R audio monitor- output terminal (3.5mm Stereo Mini Jack)
(RF input)		
Input terminals		ANT : 75Ω Unbalanced
RF Video System		PAL B, G, H / I / D, K SECAM B, G / K1 / L, L' / (D, K)*[2]

*[1] 720/50 is supported by RGB1(DVI-STB)

*[2] The SECAM D,K system might not be normally received, depending on the model.

Applicable video signals for each input terminal

Terminal	RCA/S-video/SCART				HDMI	DVI		D-sub	
Signal	CVBS	S-video	Component	SCART (RGB)		PC	STB	RGB	Component
AV1	○	○							
AV2	○			○					
AV3	○			○					
AV4	○		○						
AV5	○	○							
AV6					○				
RGB1						○	○		
RGB2								○	○

(○:Available)

3. Service points

● Lead free solder

This product uses lead free solder (unleaded) to help preserve the environment. Please read these instructions before attempting any soldering work.

Caution: Always wear safety glasses to prevent fumes or molten solder from getting into the eyes. Lead free solder can splatter at high temperatures (600˚C).

■ Lead free solder indicator

Printed circuit boards using lead free solder are engraved with an "F."

■ Properties of lead free solder

The melting point of lead free solder is 40-50˚C higher than leaded solder.

■ Servicing solder

Solder with an alloy composition of Sn-3.0Ag-0.5Cu or Sn-0.7Cu is recommended.
Although servicing with leaded solder is possible, there are a few precautions that have to be taken. (Not taking these precautions may cause the solder to not harden properly, and lead to consequent malfunctions.)

Precautions when using leaded solder

- Remove all lead free solder from soldered joints when replacing components.
- If leaded solder should be added to existing lead free joints, mix in the leaded solder thoroughly after the lead free solder has been completely melted (do not apply the soldering iron without solder).

■ Servicing soldering iron

A soldering iron with a temperature setting capability (temperature control function) is recommended.
The melting point of lead free solder is higher than leaded solder. Use a soldering iron that maintains a high stable temperature (large heat capacity), and that allows temperature adjustment according to the part being serviced, to avoid poor servicing performance.

Recommended soldering iron:

- Soldering iron with temperature control function (temperature range: 320-450˚C)

Recommended temperature range per part:

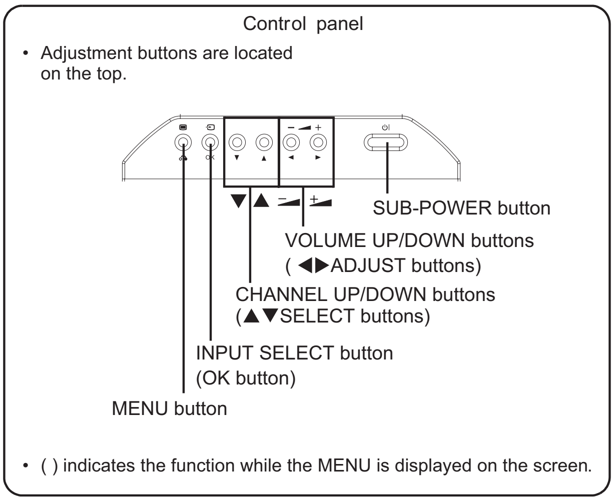
Part	Soldering iron temperature
Mounting (chips) on mounted PCB	320˚C±30˚C
Mounting (chips) on empty PCB	380˚C±30˚C
Chassis, metallic shield, etc.	420˚C±30˚C

The PWB assembly which has used lead free solder

SW PWB, LED/RECEIVER PWB, SP TERMINAL(L/R) PWB, SUB POWER PWB,
MAIN POWER PWB
AUDIO PWB, JOINT PWB, Swievel PWB, HDMI PWB, control PWB
VIDEO PWB
TUNER PWB

4. Component names

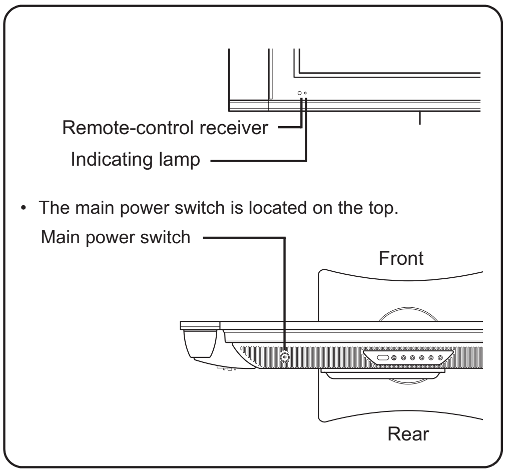
[Main unit]


Control panel

- Adjustment buttons are located on the top.

SUB-POWER button
VOLUME UP/DOWN buttons
(◀▶ADJUST buttons)
CHANNEL UP/DOWN buttons
(▲▼SELECT buttons)
INPUT SELECT button
(OK button)
MENU button
OK

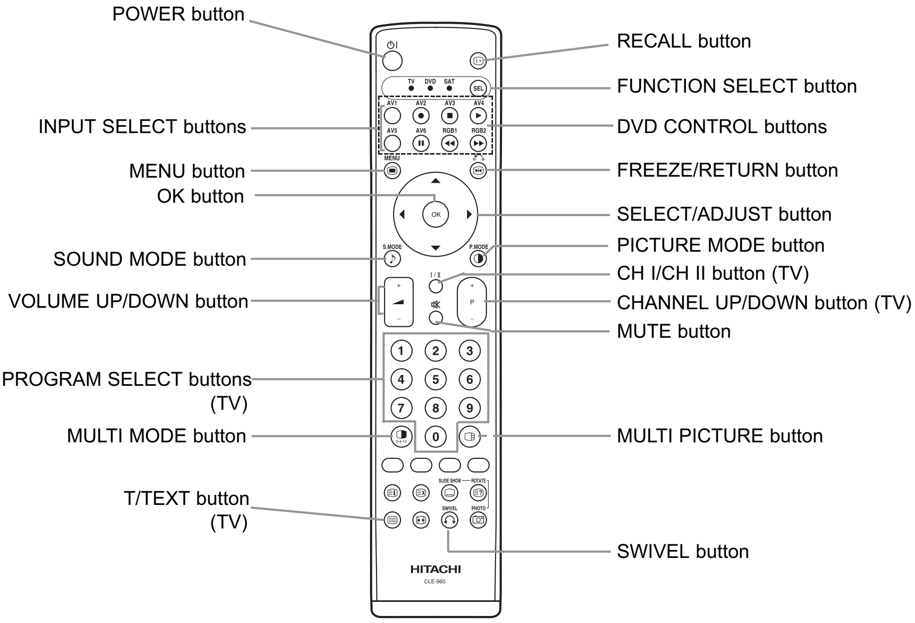
- ( ) indicates the function while the MENU is displayed on the screen.


Remote-control receiver
Indicating lamp

- The main power switch is located on the top.

Main power switch
Front
Rear

[Remote control]


POWER button
INPUT SELECT buttons
MENU button
OK button
SOUND MODE button
VOLUME UP/DOWN button
PROGRAM SELECT buttons
(TV)
MULTI MODE button
T/TEXT button
(TV)
RECALL button
FUNCTION SELECT button
DVD CONTROL buttons
FREEZE/RETURN button
SELECT/ADJUST button
PICTURE MODE button
CH I/CH II button (TV)
CHANNEL UP/DOWN button (TV)
MUTE button
MULTI PICTURE button
SWIVEL button
TV
DVD
SAT
SEL
AV1
AV2
AV3
AV4
AV5
AV6
RGB1
RGB2
MENU
OK
S.MODE
P.MODE
P
1
2
3
4
5
6
7
8
9
0
SLIDE SHOW
ROTATE
SWIVEL
PHOTO
HITACHI
CLE-960

CLE-960

5. New adoption technology

[System control micom I001(M3062)]

- **Pin function table**

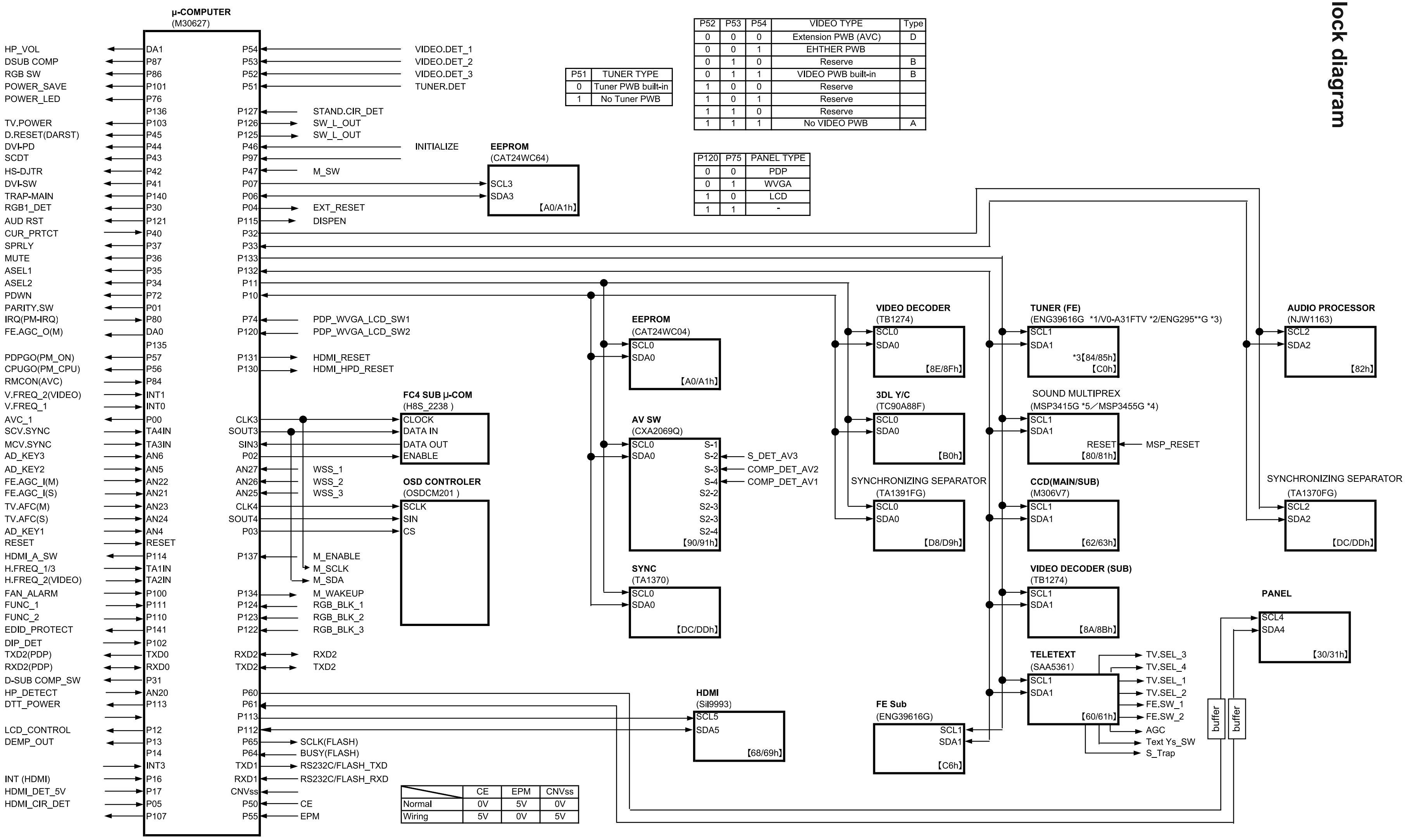
No.	PIN name	I/O	FUNCTION
1	VREF (+5.0V)	I	5V
2	+5.0V	I	5V
3	NC	I/O	NC
4	OSD_DATA	I/O	OSD DATA
5	OSD_CLK	I/O	OSD CLK
6	HP_VOL	I/O	Head Phone Volume
7	FE.AGC_O(M)	I/O	AGC Voltage(F/E)
8	DATA_OUT(FC)	I/O	FC DATA
9	DATA_IN(FC)	I/O	FC DATA
10	CLK(FC)	I/O	FC CLOCK
11	EDID_PROTECT	I/O	Memory Protect
12	TRAP_MAIN	I/O	TRAP-MAIN
13	GND	I	GND
14	CNVSS(FLASH)	I	CNVSS(FLASH)
15	DSUB COMP	I/O	SYNC-SW
16	RGBSW	I/O	SYNC-SW
17	RESET	I	RESET
18	16MHz oscillation	O	OSC-OUT
19	GND	I	GND
20	16MHz oscillation	I	OSC-IN
21	+5.0V	I	5V
22	NMI(+5.0V)	I	5V PULL UP
23	RMCON(AVC)	I/O	IR Signal
24	V.FREQ_2(VIDEO)	I/O	TA1370(LA7213), COMPONENT2
25	V.FREQ_1/3	I/O	TA1370(LA7213), COMPONENT(Main)/ DSUB COMPONENT
26	SCV.SYNC	I/O	CVBS for SYNC Detection(Sub Picture)
27	IRQ（PM-IRQ)	I/O	PANEL MODULE Condition(L:Normal,H:Error)
28	MCV.SYNC	I/O	CVBS for SYNC Detection(Main Picture)
29	POWER_LED	I/O	L：LED ON(Power Save)
30	H.FREQ_2(VIDEO)	I/O	TA1370(LA7213), COMPONENT2
31	PDP_WVGA_LCD_SW_2	I/O	PDP/42WVGA/LCD detection
32	H.FREQ_1/_3	I/O	TA1370(LA7213), COMPONENT1(Main), D-SUB
33	PDWN	I/O	RESERVE(LVDS Power Down mode(PANEL))
34	RXD2	I/O	DTT
35	TXD2	I/O	DTT
36	TXD1(RS232C/FLASH)	I/O	DATA(RS-232C)
37		I	5V
38	RXD1(RS232C/FLASH)	I/O	DATA(RS-232C)
39		I	GND
40	SCLK(FLASH)	I/O	CLOCK(FRASH MEMORY Writing)
41	BUSY(FLASH)	I/O	BUSY(FRASH MEMORY Writing)
42	TXD0(PDP)	I/O	Ether Net
43	RXD0(PDP)	I/O	Ether Net
44	SDA4(panel)	I/O	I^2C-BUS Contorol DATA
45	SCL4(panel)	I/O	I^2C-BUS Contorol CLOCK
46	M_ENABLE	I/O	Media Enable
47	M_SCLK	I/O	Media Clock
48	M_SDA	I/O	Media Data
49	M_WAKEUP	I/O	Media Wakeup
50	PDPGO(PM_ON)	I/O	PDP PALEL Contorol

No.	PIN name	I/O	FUNCTION
51	CPUGO(PM_CPU)	I/O	PDP PALEL Contorol
52	EPM (FLASH)	I/O	FRASH MEMORY Writing
53	VIDEO.DET_1	I/O	Detecting VIDEO PWB
54	SCL1	I/O	I2C（to PWB TUNER side）FE/MSP3455or MSP3415G/SAA5361/TB1274(Sub)/M306V7/M62320P
55	SDA1	I/O	I2C（to PWB TUNER side）FE/MSP3455or MSP3415G/SAA5361/TB1274(Sub)/M306V7/M62320P
56	HDMI-RESET	I/O	HDMI-Reset
57	HDMI-HPD_RESET	I/O	Hot Plug Detect Reset
58	VIDEO.DET_2	I/O	Detecting VIDEO PWB
59	VIDEO.DET_3	I/O	Detecting VIDEO PWB
60	TUNER.DET_1	I/O	Detecting TUNER PWB
61	CE (FLASH)	I/O	FRASH MEMORY Writing
62	STAND.CIR_DET	I/O	Detecting SWIVEL PWB
63	SW_L_OUT	I/O	SWIVEL(L-output)
64	SW_R_OUT	I/O	SWIVEL(R-output)
65	M_SW	I/O	Discriminate terminal of bridge media circuit connecting.
66	INITIALIZE	I/O	Initializing EEPROM
67	D.RESET(DARST)	I/O	RESET(DVI)
68	DVI-PD	I/O	DVI Contorol
69	SCDT	I/O	DVI Contorol
70	HS-DJTR	I/O	DVI Contorol
71	DVI-SW	I/O	DVI Contorol
72	CUR_PRTCT	I/O	Detecting Power-SWIVEL
73	SPRLY	I/O	SP ON/OFF Relay Control
74	MUTE	I/O	MUTE
75	ASEL1	I/O	AUDIO Signal SW
76	ASEL2	I/O	AUDIO Signal SW
77	SDA2	I/O	I2C(NJW1163,AD7414,TA1370)
78	SCL2	I/O	I2C(NJW1163,AD7414,TA1370)
79	D-SUB COMP_SYNC.SW	I/O	SYNC-SW
80	BM_SW	I/O	BM switch
81	RGB_BLK_2	I/O	NC
82	RGB_BLK_3	I/O	NC
83	AUD RST	I/O	RESET for LIPSYNC IC
84	PDP_WVGA_LCD_SW_1	I/O	PDP/42WVGA/LCD detection
85	+5.0V	I	
86	RGB1_DET	I/O	NC
87	GND	I	GND
88	WSS_1	I/O	NC
89	WSS_2	I/O	NC
90	WSS_3	I/O	NC
91	TV.AFC(S)	I/O	AFC Voltage(Sub TUNER)
92	TV.AFC(M)	I/O	AFC Voltage(Main TUNER)
93	FE_AGC_I(M)	I/O	AGC Voltage(Main TUNER)
94	FE_AGC_I(S)	I/O	AFC Voltage(Sub TUNER)
95	HP_DETECT	I/O	HEAD PHONE DETECT
96	HDMI_DET	I/O	HDMI 5V DET
97	INT_HDMI	I/O	INT(HDMI)
98	NC	I/O	NC
99	COMP_SW	I/O	Component SW Main ⇔ DSUB
100	DEMP_OUT	I/O	de-emphasis control output for HDMI

No.	**PIN name**	I/O	FUNCTION
101	CONTROL	I/O	LCD PANEL
102	SCL0	I/O	I^2C-BUS Contorol CLOCK
103	SDA0	I/O	I^2C-BUS Contorol DATA
104	SCL3(EEPROM)	I/O	I2C-BUS Contorol CLOCK
105	SDA3(EEPROM)	I/O	I2C-BUS Contorol DATA
106	HDMI_CIR_DET	I/O	Detecting HDMI circuit connection
107	EXT_RESET	I/O	EXTERNAL RESET
108	OSD_CS	I/O	OSD CS
109	FC_ENABLE	I/O	FC ENABLE
110	NC	I/O	NC
111	NC	I/O	NC
112	IRQ_DTT	I/O	DTT IRQ
113	DTT_POWER	I/O	DTT POWER
114	DISPEN	I/O	DISPEN
115	HDMI_A_SW	I/O	HDMI AUDIO SW
116	SCL5	I/O	I^2C-BUS Contorol CLOCK
117	SDA5	I/O	I^2C-BUS Contorol DATA
118	FUNC_1	I/O	Function 1
119	FUNC_2	I/O	Function 2
120	NC	I/O	NC
121	AD_KEY3	I/O	AD KEY3
122	AD_KEY2	I/O	AD KEY2
123	AD_KEY1	I/O	AD KEY1(INPUT)
124	TV.POWER	I/O	POWRE ON/OFF(H:ON、L:STANDBY)
125	DIP.DET	I/O	DIP DET
126	POWER_SAVE	I/O	POWER ON/OFF(L：ON(STANDBY·POWER SAVE), H：OFF)
127	GND	I	GND
128	FAN_ALARM	I/O	FAN ALARM

● Block diagram

32LD7200 (PW2L)


μ-COMPUTER
(M30627)
HP_VOL DA1
DSUB COMP P87
RGB SW P86
POWER_SAVE P101
POWER_LED P76
P136
TV.POWER P103
D.RESET(DARST) P45
DVI-PD P44
SCDT P43
HS-DJTR P42
DVI-SW P41
TRAP-MAIN P140
RGB1_DET P30
AUD RST P121
CUR_PRTCT P40
SPRLY P37
MUTE P36
ASEL1 P35
ASEL2 P34
PDWN P72
PARITY.SW P01
IRQ(PM-IRQ) P80
FE.AGC_O(M) DA0
P135
PDPGO(PM_ON) P57
CPUGO(PM_CPU) P56
RMCON(AVC) P84
V.FREQ_2(VIDEO) INT1
V.FREQ_1 INT0
AVC_1 P00
SCV.SYNC TA4IN
MCV.SYNC TA3IN
AD_KEY3 AN6
AD_KEY2 AN5
FE.AGC_I(M) AN22
FE.AGC_I(S) AN21
TV.AFC(M) AN23
TV.AFC(S) AN24
AD_KEY1 AN4
RESET RESET
HDMI_A_SW P114
H.FREQ_1/3 TA1IN
H.FREQ_2(VIDEO) TA2IN
FAN_ALARM P100
FUNC_1 P111
FUNC_2 P110
EDID_PROTECT P141
DIP_DET P102
TXD2(PDP) TXD0
RXD2(PDP) RXD0
D-SUB COMP_SW P31
HP_DETECT AN20
DTT_POWER P113
P12
LCD_CONTROL P13
DEMP_OUT P14
INT3
INT (HDMI) P16
HDMI_DET_5V P17
HDMI_CIR_DET P05
P107
P54 VIDEO.DET_1
P53 VIDEO.DET_2
P52 VIDEO.DET_3
P51 TUNER.DET
P127 STAND.CIR_DET
P126 SW_L_OUT
P125 SW_L_OUT
P46 INITIALIZE
P97
P47 M_SW
P07
P06
P04 EXT_RESET
P115 DISPEN
P32
P33
P133
P132
P11
P10
P74 PDP_WVGA_LCD_SW1
P120 PDP_WVGA_LCD_SW2
P131 HDMI_RESET
P130 HDMI_HPD_RESET
CLK3
SOUT3
SIN3
P02
AN27 WSS_1
AN26 WSS_2
AN25 WSS_3
CLK4
SOUT4
P03
P137 M_ENABLE
M_SCLK
M_SDA
P134 M_WAKEUP
P124 RGB_BLK_1
P123 RGB_BLK_2
P122 RGB_BLK_3
RXD2 RXD2
TXD2 TXD2
P60
P61
P113
P112
P65 SCLK(FLASH)
P64 BUSY(FLASH)
TXD1 RS232C/FLASH_TXD
RXD1 RS232C/FLASH_RXD
CNVss
P50 CE
P55 EPM
EEPROM
(CAT24WC64)
SCL3
SDA3
【A0/A1h】
FC4 SUB μ-COM
(H8S_2238)
CLOCK
DATA IN
DATA OUT
ENABLE
OSD CONTROLER
(OSDCM201)
SCLK
SIN
CS
EEPROM
(CAT24WC04)
SCL0
SDA0
【A0/A1h】
AV SW
(CXA2069Q)
SCL0
SDA0
S-1
S-2
S-3
S-4
S2-2
S2-3
S2-3
S2-4
【90/91h】
S_DET_AV3
COMP_DET_AV2
COMP_DET_AV1
SYNC
(TA1370)
SCL0
SDA0
【DC/DDh】
HDMI
(Sil9993)
SCL5
SDA5
【68/69h】
VIDEO DECODER
(TB1274)
SCL0
SDA0
【8E/8Fh】
3DL Y/C
(TC90A88F)
SCL0
SDA0
【B0h】
SYNCHRONIZING SEPARATOR
(TA1391FG)
SCL0
SDA0
【D8/D9h】
FE Sub
(ENG39616G)
SCL1
SDA1
【C6h】
TUNER (FE)
(ENG39616G *1/V0-A31FTV *2/ENG295**G *3)
SCL1
SDA1
*3【84/85h】
【C0h】
SOUND MULTIPREX
(MSP3415G *5／MSP3455G *4)
SCL1
SDA1
RESET
【80/81h】
MSP_RESET
CCD(MAIN/SUB)
(M306V7)
SCL1
SDA1
【62/63h】
VIDEO DECODER (SUB)
(TB1274)
SCL1
SDA1
【8A/8Bh】
TELETEXT
(SAA5361)
SCL1
SDA1
【60/61h】
TV.SEL_3
TV.SEL_4
TV.SEL_1
TV.SEL_2
FE.SW_1
FE.SW_2
AGC
Text Ys_SW
S_Trap
AUDIO PROCESSOR
(NJW1163)
SCL2
SDA2
【82h】
SYNCHRONIZING SEPARATOR
(TA1370FG)
SCL2
SDA2
【DC/DDh】
PANEL
SCL4
SDA4
【30/31h】
buffer
buffer

P52	P53	P54	VIDEO TYPE	Type
0	0	0	Extension PWB (AVC)	D
0	0	1	EHTHER PWB	
0	1	0	Reserve	B
0	1	1	VIDEO PWB built-in	B
1	0	0	Reserve	
1	0	1	Reserve	
1	1	0	Reserve	
1	1	1	No VIDEO PWB	A

P51	TUNER TYPE
0	Tuner PWB built-in
1	No Tuner PWB

P120	P75	PANEL TYPE
0	0	PDP
0	1	WVGA
1	0	LCD
1	1	-

	CE	EPM	CNVss
Normal	0V	5V	0V
Wiring	5V	0V	5V

6. Adjustment

● How to get to Adjustment mode

Using the center of the upper control buttons with the set turned off (standby) can activate it.

Press the SUB-POWER(⏻|) button, INPUT SELECT(⎆) button and ▼ button at the same time, and hold for more than 5 seconds.

The set turns on in adjustment mode with OSD.

● Changing data and Selecting Adjustment code

When the set is in adjustment mode, the cursor ◀ , ▶ , ▲ , ▼ and OK buttons of the remote control or the control buttons may be used as the adjustment keys.

▲ , ▼ buttons are used for selecting adjustment code.

◀ , ▶ buttons are used for changing data values.

OK button is used for confirming the data.

After finishing the necessary adjustment press MENU button. Adjustment mode is released and the set returns to normal condition.

● Memory Initialize operation

NOTE: The execution of this function returns the adjustment codes to the preset values, therefore, adjustment data will be lost.

Procedure

(1) Enter Adjustment Mode.

(2) Select MEMORY INIT adjustment code (No.658) and change the data value from 0 to 1.

(3) Activate MEMORY INIT by pressing OK button for more than 3 seconds.

(4) Select No.525 and change data value from 1 to 0.

(5) Check that the receiving channel goes to P1. Unit is set to preset values.

● Service adjustment items by I^2C-bus control (MAIN Part)

Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
0	00h	1	SUB_CONTRAST (RF)	Main	15	8
1	01h	1	SUB_CONTRAST (AV1)	Main/Sub Composite mode	15	8
2	02h	1	SUB_CONTRAST (AV2)	Main/Sub Composite mode	15	8
3	03h	1	SUB_CONTRAST (AV3)	Main/Sub Composite mode	15	8
4	04h	1	SUB_CONTRAST (AV4)	Main/Sub Composite mode	15	8
5	05h	1	SUB_CONTRAST (AV5)	Main/Sub Composite mode	15	8
6	06h	1	SUB_CONTRAST (RF)	Sub	15	8
7	07h	1	Sub Color	Main	15	8
8	08h	1	Sub Color	Sub	15	10
9	09h	1	TINT（RF)	Main	63	33
10	0Ah	1	TINT（VIDEO)	Main	63	33
11	0Bh	1	TINT（RF）	Sub	63	33
12	0Ch	1	TINT（VIDEO）	Sub	63	33
13	0Dh	1	AGC adjustment (MFE)	Main	63	50
14	0Eh	1	AGC adjustment (SFE)	Sub	63	50
15	0Fh	1	AGC INPUT (MFE)	Main	–	–
16	10h	1	AGC INPUT (SFE)	Sub	–	–
17	11h	1	Reference Amplitude (RGB_AMP)	RF/VIDEO	254	127
18	12h	1	Reference Amplitude (RGB_AMP)	PC	254	127
19	13h	1	Reference Amplitude (RGB_AMP)	Multi Picture mode	254	130
20	14h	1	Display for Max. Amplitude Level	Main	–	–
21	15h	1	Display for Max. Amplitude Level	Sub	–	–
22	16h	1	Offset Value(+/-) of Upper Limit (for FC : (RGB_AMP))	Multi Picture mode	18	2
23	17h	1	Offset Value(+/-) of Upper Limit (for TB1274: SUB-CONT)	Single Picture mode	18	2
24	18h	1	Offset Value(+/-) of Upper Limit (for TB1274: Sub Color)		18	2
25	19h	1	Terget value of White peak Adj.	Single Picture mode	237	235
26	1Ah	1	Terget value of Color Level Adj. (for TB1274: Sub Color)		237	235
27	1Bh	1	Set Blue Gamma gain On/Off 0: Off, 1: On (For 55V)	For 55V	1	1
28	1Ch	1	Contrast mode<Dynamic> SW (TV) 0:Dynamic, 1:Dynamic+Auto	RF	1	1
29	1Dh	1	Select for WIDE Mode		1	1
30	1Eh	1	PinP Function (for PC) 0:PinP, 1: Information 1, 2: Information Split		2	0
31	1Fh	1	Black Level(RGB_AMP)	RF/VIDEO	254	127
32	20h	1	Black Level(RGB_AMP)	PC	254	127
33	21h	1	Black Level(RGB_AMP)	HDMI	254	127
34	22h	1	Black Level(RGB_AMP)	For USA NTSC/480i	254	127
35	23h	1	YNR Input Level for AV1-5 Mode	RF	7	7
36	24h	1	YNR Input Level for AV1-5 Mode	VIDEO	7	7
37	25h	1	YNR Input Level for AV1-5 Mode	Scart-RGB (50/60Hz)	7	7
38	26h	1	YNR Input Level for AV1-5 Mode	480i/576i	7	7
39	27h	1	YNR Input Level for AV1-5 Mode	480p/576p	7	7
40	28h	1	YNR Input Level for AV1-5 Mode	1080i-50/60/720p	7	7
41	29h	1	YNR Input Level for DVI-STV Mode	480i/480p/576i/576p/VGA	7	7
42	2Ah	1	YNR Input Level for DVI-STV Mode	1080i-50/60/720p	7	7
43	2Bh	1	CNR Input Level at Low level for AV1-5 Mode	RF/VIDEO	7	4
44	2Ch	1	CNR Input Level at Low level for AV1-5 Mode	Scart-RGB (50/60Hz)	7	4
45	2Dh	1	CNR Input Level at Low level for AV1-5 Mode	480i/576i	7	4
46	2Eh	1	CNR Input Level at Low level for AV1-5 Mode	480p/576p	7	4
47	2Fh	1	CNR Input Level at Low level for AV1-5 Mode	1080i-50/60/720p	7	4
48	30h	1	CNR Input Level at Low level for DVI-STV Mode	480i/480p/576i/576p/VGA	7	2
49	31h	1	CNR Input Level at Low level for DVI-STV Mode	1080i-50/60/720p	7	2
50	32h	1	CNR Input level at low level for Dsub Comp. mode	480i/576i	7	2

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Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
51	33h	1	CNR Input level at low level for Dsub Comp. mode	480p/576p	7	2
52	34h	1	CNR Input level at low level for Dsub Comp. mode	1080i-50/60/720p	7	2
53	35h	1	Main/Sub YFRNR passage level [MYNRP0]	NTSC/PAL/Multi	7	1
54	36h	1	[MYNRP5]	NTSC/PAL-VIDEO	7	0
55	37h	1	[MYNRP6']	Scart-RGB (50/60Hz)	7	0
56	38h	1	[MYNRP6]	480i/576i (Except HDMI)	7	0
57	39h	1	[MYNRP7]	480p/576p (Except HDMI)	7	0
58	3Ah	1	[MYNRP8]	1080i-50/60/720p (Except HDMI)	7	0
59	3Bh	1	Main/Sub CFRNR passage level [MCNRP0]	NTSC/PAL/Multi	7	0
60	3Ch	1	[MCNRP5]	NTSC/PAL-VIDEO	7	0
61	3Dh	1	[MCNRP6']	Scart-RGB (50/60Hz)	7	0
62	3Eh	1	[MCNRP6]	480i/576i	7	0
63	3Fh	1	[MCNRP7]	480p/576p	7	0
64	40h	1	[MCNRP8]	1080i-50/60/720p	7	0
65	41h	1	Enhancer Gain of Vertical for B-Y/B, R-Y/R [CVEG0]	NTSC/PAL/480i/576i/Multi	15	15
66	42h	1	[CVEG1]	480p/576p/1080i-50/60/720p	15	9
67	43h	1	DSB Gain of Vertical for B-Y/B、R-Y/R [CVDSBG0]	NTSC/PAL/480i/576i/Multi	3	0
68	44h	1	[CVDSBG1]	480p/576p/1080i-50/60/720p	3	0
69	45h	1	DSB Coring of Vertical for B-Y/B、R-Y/R [CVDSBC0]	NTSC/PAL/480i/576i/Multi	7	0
70	46h	1	[CVDSBC1]	480p/576p/1080i-50/60/720p	7	0
71	47h	1	Enhancer CLIP of Vertical for B-Y/B, R-Y/R 0:CTI [CVECLP0]	NTSC/PAL/480i/576i/Multi	1	0
72	48h	1	[CVECLP1]	480p/576p/1080i-50/60/720p	1	0
73	49h	1	Change HPF Peak Frequency of Horizontal for B-Y/B, R-Y/R [CHHPF0]	NTSC/PAL/480i/576i/Multi	3	2
74	4Ah	1	[CHHPF1]	480p/576p/1080i-50/60/720p	3	2
75	4Bh	1	Enhancer Gain of Horizontal for B-Y/B, R-Y/R [CHEG0]	NTSC/PAL/480i/576i/Multi	15	15
76	4Ch	1	[CHEG1]	480p/576p/1080i-50/60/720p	15	9
77	4Dh	1	DSB Gain of Horizontal for B-Y/B, R-Y/R [CHDSBG0]	NTSC/PAL/480i/576i/Multi	3	0
78	4Eh	1	[CHDSBG1]	480p/576p/1080i-50/60/720p	3	0
79	4Fh	1	DSB Coring of Horizontal for B-Y/B, R-Y/R [CHDSBC0]	NTSC/PAL/480i/576i/Multi	7	0
80	51h	1	[CHDSBC1]	480p/576p/1080i-50/60/720p	7	0
81	52h	1	Enhancer CLIP of Horizontal for B-Y/B, R-Y/R 0:CTI [CHECLP0]	NTSC/PAL/480i/576i/Multi	1	0
82	53h	1	[CHECLP1]	480p/576p/1080i-50/60/720p	1	0
83	54h	1	B-Y clamp offset	NTSC/PAL/480i/576i/480p/576p	255	128
84	55h	1	R-Y clamp offset	NTSC/PAL/480i/576i/480p/576p	255	128
85	57h	1	B-Y clamp offset	1080i-50/60	255	128
86	58h	1	R-Y clamp offset	1080i-50/60	255	128
87	59h	1	B-Y clamp offset	720p	255	128
88	5Ah	1	R-Y clamp offset	720p	255	128
89	5Bh	1	B-Y clamp offset [DVI-STB]	480i/576i/480p/576p/VGA	255	128
90	5Ch	1	R-Y clamp offset [DVI-STB]	480i/576i/480p/576p/VGA	255	128
91	5Dh	1	B-Y clamp offset [DVI-STB]	1080i-50/60	255	128
92	5Eh	1	R-Y clamp offset [DVI-STB]	1080i-50/60	255	128
93	5Fh	1	B-Y clamp offset [DVI-STB]	720p	255	128
94	60h	1	R-Y clamp offset [DVI-STB]	720p	255	128
95	61h	1	P/N ID	Main	1	0
96	62h	1	P/N ID	Sub	1	0
97	63h	1	Sharpness Gain (RF/NR)	Main/Sub	15	2
98	64h	1	Dummy98 *Move to Sub (#207~217)	—	–	–
99	65h	1	Dummy99	—	–	–
100	66h	1	Dummy100	—	–	–
101	67h	1	Dummy101	—	–	–

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Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
102	68h	1	Dummy102	–	–	–
103	69h	1	Dummy103	–	–	–
104	6Ah	1	Dummy104	–	–	–
105	6Bh	1	Dummy105	–	–	–
106	6Ch	1	Dummy106	–	–	–
107	6Dh	1	Dummy107	–	–	–
108	6Eh	1	Dummy108	–	–	–
109	6Fh	1	Sharpness Gain 480i/576i for USA-CCD only	Main	15	8
110	70h	1	Sharpness Gain (RF) BG/DK/I	Sub	15	8
111	71h	1	Sharpness Gain RF) M	Sub	15	8
112	72h	1	Sharpness Gain (RF) L	Sub	15	8
113	73h	1	Sharpness Gain (RF) L'	Sub	15	8
114	74h	1	Sharpness Gain (VIDEO) PAL	Sub	15	10
115	75h	1	Sharpness Gain (VIDEO) NTSC3.58	Sub	15	10
116	76h	1	Sharpness Gain (VIDEO) SECAM,B/W	Sub	15	10
117	77h	1	Sharpness Gain (VIDEO) NTSC4.43	Sub	15	10
118	78h	1	Sharpness Gain (VIDEO) N-PAL	Sub	15	10
119	79h	1	Sharpness Gain (VIDEO) M-PAL	Sub	15	10
120	7Ah	1	Sharpness Gain (S.VIDEO)	Sub	15	8
121	7Bh	1	Sharpness Gain 480i/576i for USA-CCD only	Sub	15	8
122	7Ch	1	Sharpness f0 (RF) BG/DK/I	Main/Sub	3	2
123	7Dh	1	Sharpness f0 (RF) M	Main/Sub	3	2
124	7Eh	1	Sharpness f0 (RF) L	Main/Sub	3	2
125	7Fh	1	Sharpness f0 (RF) L'	Main/Sub	3	2
126	80h	1	Sharpness f0 VIDEO) PAL	Main/Sub	3	2
127	81h	1	Sharpness f0 (VIDEO) NTSC3.58	Main/Sub	3	2
128	82h	1	Sharpness f0 (VIDEO) SECAM,B/W	Main/Sub	3	2
129	83h	1	Sharpness f0 (VIDEO) NTSC4.43	Main/Sub	3	2
130	84h	1	Sharpness f0 (VIDEO) N-PAL	Main/Sub	3	2
131	85h	1	Sharpness f0 (VIDEO) M-PAL	Main/Sub	3	2
132	86h	1	Sharpness f0 480i/576i for USA-CCD only	Main/Sub	3	2
133	87h	1	Y Out Level M (4.5)	Main	63	15
134	88h	1	Y Out Level B/G (5.5)	Main	63	13
135	89h	1	Y Out Level D/K (6.5)	Main	63	16
136	8Ah	1	Y Out Level I (6.0)	Main	63	14
137	8Bh	1	Y Out Level L (6.5)	Main	63	13
138	8Ch	1	Y Out Level L' (6.5)	Main	63	16
139	8Dh	1	Y Out Level (VIDEO)	Main	63	15
140	8Eh	1	Y Out Level (TEXT)	Main	63	0
141	8Fh	1	Y Out Level (480i) for USA-CCD only	Main	63	15
142	90h	1	Y Out Level M (4.5)	Sub	63	15
143	91h	1	Y Out Level B/G (5.5)	Sub	63	13
144	92h	1	Y Out Level D/K (6.5)	Sub	63	12
145	93h	1	Y Out Level I (6.0)	Sub	63	13
146	94h	1	Y Out Level L (6.5)	Sub	63	12
147	95h	1	Y Out Level L' (6.5)	Sub	63	15
148	96h	1	Y Out Level (VIDEO)	Sub	63	13
149	97h	1	Y Out Level (TEXT)	Sub	63	4
150	98h	1	Y Out Level (480i) for USA-CCD only	Sub	63	15
151	99h	1	C Out Level M (4.5)	Main	63	10

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Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
152	9Ah	1	C Out Level B/G (5.5)	Main	63	7
153	9Bh	1	C Out Level D/K (6.5)	Main	63	7
154	9Ch	1	C Out Level I (6.0)	Main	63	8
155	9Dh	1	C Out Level L (6.5)	Main	63	8
156	9Eh	1	C Out Level L' (6.5)	Main	63	8
157	9Fh	1	C Out Level (VIDEO)	Main	63	10
158	A0h	1	C Out Level (TEXT)	Main	63	6
159	A1h	1	C Out Level (480i) for USA-CCD only	Main	63	15
160	A2h	1	C Out Level M (4.5)	Sub	63	12
161	A3h	1	C Out Level B/G (5.5)	Sub	63	8
162	A4h	1	C Out Level D/K (6.5)	Sub	63	8
163	A5h	1	C Out Level I (6.0)	Sub	63	7
164	A6h	1	C Out Level L (6.5)	Sub	63	7
165	A7h	1	C Out Level L' (6.5)	Sub	63	7
166	A8h	1	C Out Level (VIDEO)	Sub	63	10
167	A9h	1	C Out Level (TEXT)	Sub	63	8
168	AAh	1	C Out Level (480i) for USA-CCD only	Sub	63	15
169	ABh	1	BPF_Q (4.43MHz)	Main/Sub	3	3
170	ACh	1	BPF_f0 (4.43MHz)	Main/Sub	3	1
171	ADh	1	C_TRAP_SW (COMB=OFF-PAL/NTSC4.43/NTSC3.58)	Main/Sub	1	0
172	AEh	1	LPF	Main/Sub	1	0
173	AFh	1	SECAM D-Trap	Main/Sub	1	1
174	B0h	1	FILTER SW(RF)	Main/Sub	1	0
175	B1h	1	Y_DL (4.5MHz)	Main	10	6
176	B2h	1	Y_DL (5.5MHz PAL/NTSC4.43)	Main	10	4
177	B3h	1	Y_DL (5.5MHz SECAM)	Main	10	0
178	B4h	1	Y_DL (6.0PAL/NTSC4.43)	Main	10	8
179	B5h	1	Y_DL (6.0SECAM)	Main	10	9
180	B6h	1	Y_DL (6.5PAL/NTSC4.43)	Main	10	6
181	B7h	1	Y_DL (6.5SECAM)	Main	10	10
182	B8h	1	Y_DL (L)	Main	10	5
183	B9h	1	Y_DL (L')	Main	10	5
184	BAh	1	Y_DL (VIDEO PAL/NTSC4.43)	Main	10	6
185	BBh	1	Y_DL (VIDEO SECAM)	Main	10	8
186	BCh	1	Y_DL (VIDEO NTSC)	Main	10	6
187	BDh	1	Y_DL (4.5MHz)	Sub	10	5
188	BEh	1	Y_DL (5.5MHz PAL/NTSC4.43)	Sub	10	2
189	BFh	1	Y_DL (5.5MHz SECAM)	Sub	10	0
190	C0h	1	Y_DL (6.0PAL/NTSC4.43)	Sub	10	7
191	C1h	1	Y_DL (6.0SECAM)	Sub	10	5
192	C2h	1	Y_DL (6.5PAL/NTSC4.43)	Sub	10	5
193	C3h	1	Y_DL (6.5SECAM)	Sub	10	5
194	C4h	1	Y_DL (L)	Sub	10	5
195	C5h	1	Y_DL (L')	Sub	10	5
196	C6h	1	Y_DL (VIDEO PAL/NTSC4.43)	Sub	10	5
197	C7h	1	Y_DL (VIDEO SECAM)	Sub	10	5
198	C8h	1	Y_DL (VIDEO NTSC)	Sub	10	5
199	C9h	1	NTSC Comb(Comb off)	Sub	1	1
200	CAh	1	Cb offset1	Main	15	8
201	CBh	1	Cb Offset1 for USA-CCD only	Main 480i/576i	15	8

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Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
202	CCh	1	Cr offset1	Main	15	8
203	CDh	1	Cr Offset1 for USA-CCD only	Main 480i/576i	15	8
204	CEh	1	Cb offset1	Sub	15	8
205	CFh	1	Cb Offset1 for USA-CCD only	Sub 480i/576i	15	8
206	D0h	1	Cr offset1	Sub	15	8
207	D1h	1	Cr Offset1 for USA-CCD only	Sub 480i/576i	15	8
208	D2h	1	MVM（VIDEO）	—	1	0
209	D3h	1	AFC_GAIN (AV00)	—	3	0
210	D4h	1	AFC_GAIN (AV1)	—	3	0
211	D5h	1	AFC_GAIN (AV2)	—	3	0
212	D6h	1	AFC_GAIN (AV3)	—	3	0
213	D7h	1	AFC_GAIN (AV4)	—	3	0
214	D8h	1	AFC_GAIN (AV5)		3	0
215	D9h	1	AFC_GAIN (Except AV00)		3	0
216	DAh	1	S_B-Y_ADJ	Main	15	8
217	DBh	1	S_R-Y_ADJ	Main	15	8
218	DCh	1	S_B-Y_ADJ	Sub	15	8
219	DDh	1	S_R-Y_ADJ	Sub	15	8
220	DEh	1	BELL_f0	Main/Sub	1	0
221	DFh	1	S_INHBT	—	1	0
222	E0h	1	S_ID	—	1	0
223	E1h	1	S_GP	—	3	0
224	E2h	1	S_V_ID	—	1	0
225	E3h	1	BELL/HPF	—	3	3
226	E4h	1	HS Phase	Main	1	0
227	E5h	1	HS Phase	Sub	1	0
228	E6h	1	Bandwidth 1	NTSC/PAL/480i/576i	3	2
229	E7h	1	Bandwidth 1	480p/576p	3	2
230	E8h	1	Bandwidth 1	1080i-50/60/720p	3	0
231	E9h	1	Bandwidth 2	NTSC/PAL/480i/576i	3	2
232	EAh	1	Bandwidth 2	480p/576p	3	2
233	EBh	1	Bandwidth 2	1080i-50/60/720p	3	0
234	ECh	1	Sub Contrast 1	Except HDMI	15	0
235	EDh	1	Sub Contrast 1	HDMI	15	0
236	EEh	1	Sub Contrast 2	Except HDMI	15	0
237	EFh	1	Sub Contrast 2	HDMI	15	0
238	F0h	1	Sub Color 1	Except HDMI	15	12
239	F1h	1	Sub Color 1	HDMI	15	12
240	F2h	1	Sub Color 2	Except HDMI	15	8
241	F3h	1	Sub Color 2	HDMI	15	8
242	F4h	1	HV THRU 1	NTSC/PAL/480i/576i/480p/576p	1	0
243	F5h	1	HV THRU 1	1080i-50/60/720p	1	0
244	F6h	1	HV THRU 2	NTSC/PAL/480i/576i/480p/576p	1	0
245	F7h	1	HV THRU 2	1080i-50/60/720p	1	0
246	F8h	1	H_SEP 1	RF/VIDEO	1	0
247	F9h	1	H_SEP 1	480i/576i	1	0
248	FAh	1	H_SEP 1	480p/576p	1	0
249	00h	2	H_SEP 1	1080i_50	1	0
250	01h	2	H_SEP 1	1080i_60/720p	1	0
251	02h	2	H_SEP 2	RF/VIDEO	1	0

Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
252	03h	2	H_SEP 2	480i/576i	1	0
253	04h	2	H_SEP 2	480p/576p	1	0
254	05h	2	H_SEP 2	1080i_50	1	0
255	06h	2	H_SEP 2	1080i_60/720p	1	0
256	07h	2	V_SEP 1	RF/VIDEO	1	0
257	08h	2	V_SEP 1	480i/576i	1	0
258	09h	2	V_SEP 1	480p/576p	1	0
259	0Ah	2	V_SEP 1	1080i_50	1	0
260	0Bh	2	V_SEP 1	1080i_60/720p	1	0
261	0Ch	2	V_SEP 2	RF/VIDEO	1	0
262	0Dh	2	V_SEP 2	480i/576i	1	0
263	0Eh	2	V_SEP 2	480p/576p	1	0
264	0Fh	2	V_SEP 2	1080i_50	1	0
265	10h	2	V_SEP 2	1080i_60/720p	1	0
266	11h	2	AFC MODE 1	RF	3	0
267	12h	2	AFC MODE 1	VIDEO	3	0
268	13h	2	AFC MODE 2	RF	3	0
269	14h	2	AFC MODE 2	VIDEO	3	0
270	15h	2	N_LVL 1	RF	1	0
271	16h	2	N_LVL 1	VIDEO	1	0
272	17h	2	N_LVL 2	RF	1	0
273	18h	2	N_LVL 2	VIDEO	1	0
274	19h	2	HD POSITION 1 (*Through Mode: Non-functional)	RF/VIDEO	15	0
275	1Ah	2	HD POSITION 1	480i/576i	15	0
276	1Bh	2	HD POSITION 1	480p/576p	15	0
277	1Ch	2	HD POSITION 1	1080i_50	15	0
278	1Dh	2	HD POSITION 1	1080i_60/720p	15	0
279	1Eh	2	HD POSITION 2 (*Through Mode: Non-functional)	RF/VIDEO	15	0
280	1Fh	2	HD POSITION 2	480i/576i	15	0
281	20h	2	HD POSITION 2	480p/576p	15	0
282	21h	2	HD POSITION 2	1080i_50	15	0
283	22h	2	HD POSITION 2	1080i_60/720p	15	0
284	23h	2	Y LPF 1	RF	1	1
285	24h	2	Y LPF 1	VIDEO	1	1
286	25h	2	Y LPF 2	RF	1	1
287	26h	2	Y LPF 2	VIDEO	1	1
288	27h	2	Gain 1		1	1
289	28h	2	Gain 2		1	1
290	29h	2	YCS MODE	NTSC3.58	3	0
291	2Ah	2	3D DET		7	7
292	2Bh	2	AFC Gain	NTSC3.58	3	0
293	2Ch	2	2D-CNR k		3	0
294	2Dh	2	2D-CNR Lim		3	0
295	2Eh	2	GMCON		1	0
296	2Fh	2	Y-NC		1	0
297	30h	2	Y-NC Lim		3	0
298	31h	2	2D-YNR k		3	0
299	32h	2	2D-YNR Gain		3	0
300	33h	2	2D-YNR Lim		3	0
301	34h	2	BLK EXP		3	0
302	35h	2	CKILL		1	0

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Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
303	36h	2	Output Clamp		1	0
304	37h	2	Input Clamp Auto		1	1
305	38h	2	Input Clamp Manual		1	0
306	39h	2	C-ENHA		1	0
307	3Ah	2	YC-MIX		1	0
308	3Bh	2	Dummy308		–	–
309	3Ch	2	HSWINV		1	0
310	3Dh	2	Dummy310		–	–
311	3Eh	2	V-ENHA Gain	NTSC3.58	3	2
312	3Fh	2	V-ENHA NL	NTSC3.58	3	2
313	40h	2	H-ENHA Gain	NTSC3.58	3	1
314	41h	2	3DNR Corr for 3DYCS		1	0
315	42h	2	Burst ON for 2DYCS		1	0
316	43h	2	MDMPL		1	0
317	44h	2	MDMBL		1	0
318	45h	2	H-MaskOut		7	0
319	46h	2	V-MaskOut		7	0
320	47h	2	Input Y-Delay (Main RF mode) for 3DYCS		7	4
321	48h	2	Input Y-Delay (Main Video mode) for 3DYCS		7	4
322	49h	2	Output-Y-Delay (Main RF Mode) for 3DYCS		15	8
323	4Ah	2	Output-Y-Delay (Main Video Mode) for 3DYCS		15	8
324	4Bh	2	V-ENHA Core	NTSC3.58	3	0
325	4Ch	2	Input Clamp Key	NTSC3.58	1	1
326	4Dh	2	Burst Gate Key	NTSC3.58	1	1
327	4Eh	2	Sync sep LPF	NTSC3.58	1	0
328	4Fh	2	H-WST	NTSC3.58	7	3
329	51h	2	HD Amp 1	NTSC3.58	7	6
330	52h	2	HD Gain V	NTSC3.58	31	13
331	53h	2	HD Amp 2	NTSC3.58	7	1
332	54h	2	HD Gain 1	NTSC3.58	31	8
333	55h	2	HD Amp 3	NTSC3.58	7	5
334	57h	2	HD Gain 2	NTSC3.58	31	4
335	58h	2	ACMSLP	NTSC3.58	3	1
336	59h	2	ACSSLP	NTSC3.58	3	2
337	5Ah	2	AYMSLP	NTSC3.58	3	2
338	5Bh	2	AYSSLP	NTSC3.58	3	2
339	5Ch	2	ACMESET	NTSC3.58	3	3
340	5Dh	2	ACMFSET	NTSC3.58	3	3
341	5Eh	2	ACSESET	NTSC3.58	3	2
342	5Fh	2	ACSFSET	NTSC3.58	3	2
343	60h	2	AYMESET	NTSC3.58	3	3
344	61h	2	AYMFSET	NTSC3.58	3	3
345	62h	2	AYSESET	NTSC3.58	3	1
346	63h	2	AYSFSET	NTSC3.58	3	3
347	64h	2	BCMSLP	NTSC3.58	3	3
348	65h	2	BCSSLP	NTSC3.58	3	3
349	66h	2	BYMSLP	NTSC3.58	3	3
350	67h	2	BYSSLP	NTSC3.58	3	2
351	68h	2	BCMESET	NTSC3.58	3	2
352	69h	2	BCMFSET	NTSC3.58	3	2
353	6Ah	2	BCSESET	NTSC3.58	3	2

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Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
354	6Bh	2	BCSFSET	NTSC3.58	3	2
355	6Ch	2	BYMESET	NTSC3.58	3	3
356	6Dh	2	BYMFSET	NTSC3.58	3	3
357	6Eh	2	BYSESET	NTSC3.58	3	3
358	6Fh	2	BYSFSET	NTSC3.58	3	3
359	70h	2	BCMUP	NTSC3.58	1	1
360	71h	2	CECMP	NTSC3.58	7	4
361	72h	2	CSCMP	NTSC3.58	15	0
362	73h	2	F1HER	NTSC3.58	3	1
363	74h	2	F1VER	NTSC3.58	3	1
364	75h	2	MREF	NTSC3.58	15	2
365	76h	2	CDEYE	NTSC3.58	3	2
366	77h	2	YDEYE	NTSC3.58	3	2
367	78h	2	MDS	NTSC3.58	1	0
368	79h	2	F-TBC OFF MDMPL	NTSC3.58	1	0
369	7Ah	2	REC:C_DEC	Except NTSC3.58	1	0
370	7Bh	2	V-ENHA Gain	Except NTSC3.58	3	2
371	7Ch	2	V-ENHA NL	Except NTSC3.58	3	1
372	7Dh	2	H-ENHA Gain	Except NTSC3.58	3	1
373	7Eh	2	3D-CNR Lim for 2DYCS		7	0
374	7Fh	2	3D-CNR k for 2DYCS		3	0
375	80h	2	3D-CNR Gain for 2DYCS		7	0
376	81h	2	3D-YNR Lim for 2DYCS		7	0
377	82h	2	3D-YNR k for 2DYCS		3	0
378	83h	2	3D-YNR Gain for 2DYCS		7	0
379	84h	2	YCS MODE	Except NTSC3.58	3	0
380	85h	2	AFC Gain	Except NTSC3.58	3	0
381	86h	2	Dummy381		–	–
382	87h	2	Dummy382		–	–
383	88h	2	V-ENHA Core	Except NTSC3.58	3	0
384	89h	2	Input Clamp Key	Except NTSC3.58	1	1
385	8Ah	2	Burst Gate Key	Except NTSC3.58	1	1
386	8Bh	2	Sync sep LPF	Except NTSC3.58	1	0
387	8Ch	2	H-WST	Except NTSC3.58	7	3
388	8Dh	2	HD Amp 1	Except NTSC3.58	7	6
389	8Eh	2	HD Gain V	Except NTSC3.58	31	13
390	8Fh	2	HD Amp 2	Except NTSC3.58	7	1
391	90h	2	HD Gain 1	Except NTSC3.58	31	8
392	91h	2	HD Amp 3	Except NTSC3.58	7	5
393	92h	2	HD Gain 2	Except NTSC3.58	31	4
394	93h	2	ACMSLP	Except NTSC3.58	3	2
395	94h	2	ACSSLP	Except NTSC3.58	3	2
396	95h	2	AYMSLP	Except NTSC3.58	3	0
397	96h	2	AYSSLP	Except NTSC3.58	3	0
398	97h	2	ACMESET	Except NTSC3.58	3	3
399	98h	2	ACMFSET	Except NTSC3.58	3	3
400	99h	2	ACSESET	Except NTSC3.58	3	2
401	9Ah	2	ACSFSET	Except NTSC3.58	3	2
402	9Bh	2	AYMESET	Except NTSC3.58	3	3
403	9Ch	2	AYMFSET	Except NTSC3.58	3	3
404	9Dh	2	AYSESET	Except NTSC3.58	3	1

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Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
405	9Eh	2	AYSFSET	Except NTSC3.58	3	3
406	9Fh	2	BCMSLP	Except NTSC3.58	3	3
407	A0h	2	BCSSLP	Except NTSC3.58	3	3
408	A1h	2	BYMSLP	Except NTSC3.58	3	3
409	A2h	2	BYSSLP	Except NTSC3.58	3	2
410	A3h	2	BCMESET	Except NTSC3.58	3	2
411	A4h	2	BCMFSET	Except NTSC3.58	3	2
412	A5h	2	BCSESET	Except NTSC3.58	3	2
413	A6h	2	BCSFSET	Except NTSC3.58	3	2
414	A7h	2	BYMESET	Except NTSC3.58	3	3
415	A8h	2	BYMFSET	Except NTSC3.58	3	3
416	A9h	2	BYSESET	Except NTSC3.58	3	3
417	AAh	2	BYSFSET	Except NTSC3.58	3	3
418	ABh	2	BCMUP	Except NTSC3.58	1	1
419	ACh	2	CECMP	Except NTSC3.58	7	4
420	ADh	2	CSCMP	Except NTSC3.58	15	0
421	AEh	2	F1HER	Except NTSC3.58	3	1
422	AFh	2	F1VER	Except NTSC3.58	3	1
423	B0h	2	MREF	Except NTSC3.58	15	2
424	B1h	2	CDEYE	Except NTSC3.58	3	2
425	B2h	2	YDEYE	Except NTSC3.58	3	2
426	B3h	2	MDS	Except NTSC3.58	1	0
427	B4h	2	F-TBC OFF MDMPL	Except NTSC3.58	1	0
428	B5h	2	SEPA_LEVEL_DSUB	480i/576i	3	2
429	B6h	2	SEPA_LEVEL_DSUB	480p/576p	3	2
430	B7h	2	SEPA_LEVEL_DSUB	1080i_50	3	2
431	B8h	2	SEPA_LEVEL_DSUB	1080i_60/720p	3	2
432	B9h	2	HD-PHASE_DSUB	480i/576i	63	20
433	BAh	2	HD-PHASE_DSUB	480p/576p	63	20
434	BBh	2	HD-PHASE_DSUB	1080i_50	63	20
435	BCh	2	HD-PHASE_DSUB	1080i_60/720p	63	20
436	BDh	2	Heat APC function (HAPC) available		1	1
437	BEh	2	γ-select (0: 1.0, 1: 2.2, 2: 2.8)	RF/VIDEO	2	1
438	BFh	2	γ-select (0: 1.0, 1: 2.2, 2: 2.8)	DVI-PC/DVI-STB/DSUB-RGB	2	1
439	C0h	2	Select for APC function		1	0
440	C1h	2	CCFMD function	RF/VIDEO	1	0
441	C2h	2	CCFMD function	DVI-PC/DVI-STB/DSUB-RGB	1	0
442	C3h	2	NTSC/EBU (CCFORM)	SD(YCbCr)/Scart-RGB	1	0
443	C4h	2	NTSC/EBU (CCFORM)	HD(YPbPr)	1	0
444	C5h	2	NTSC/EBU (CCFORM)	DVI-PC/DVI-STB/DSUB-RGB	1	0
445	C6h	2	Correction for Tracking (DCBON)	RF/VIDEO-Color Temp. Cool	1	1
446	C7h	2	Correction for Tracking (DCBON)	RF/VIDEO-Color Temp. Nor/War	1	1
447	C8h	2	Correction for Tracking (DCBON)	DVI-PC/DVI-STB/DSUB-RGB	1	1
448	C9h	2	Color Temp. Correction		3	2
449	CAh	2	Brightness Limited Function of PANEL [APSON]		1	1
450	CBh	2	Dynamic Back Light Correction		1	1
451	CCh	2	Dynamic Contrast Correction		1	1
452	CDh	2	Histogram Color Management		1	1
453	CEh	2	Histogram Gradation Amp.		1	1
454	CFh	2	Histogram Enhancer		1	1
455	D0h	2	Dynamic Enhancer		1	1

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Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
456	D1h	2	FC6 THROUGH 0: OFF, 1: THROUGH ON		1	0
457	D2h	2	APL Enhancer 0: OFF, 1: ON		1	1
458	D3h	2	ATC INPUT RED SELECT		1	0
459	D4h	2	HD/VD OUTPUT LEVEL		1	1
460	D5h	2	ISM Control for WVGA	For WVGA	1	1
461	D6h	2	SWIVEL DEMO MODE ON		50	0
462	D7h	2	WVGA BRIGHTNESS	For WVGA	1	0
463	D8h	2	Black insert function 0: Not available, 1: Available	For LCD Dynamic mode or Day mode	1	0
464	D9h	2	Dynamic Backlight function 0: No, 1: Yes	For LCD	1	1
465	DAh	2	DVI-STB Setup 0: None VGA/Others Yes, 1: All none 2: All have	DVI-STB	2	0
466	DBh	2	HSYNC De-Jitter 0: Low (Disabled), 1: High (Enabled)	DVI-PC	1	0
467	DCh	2	HSYNC De-Jitter 0: Low (Disabled), 1: High (Enabled)	DVI-STB	1	0
468	DDh	2	DTT LOG ENABLE(Reserved)	–	1	0
469	DEh	2	AUTO_FM/AM (D11-D8)	–	15	2
470	DFh	2	AUTO_FM/AM (D 7-D0)	–	254	189
471	E0h	2	A2_THRESHOLD (D11-D8)	–	15	0
472	E1h	2	A2_THRESHOLD (D 7-D0)	–	254	112
473	E2h	2	PRE_AM	Except 4.5MHz (Except Dual/Stereo mode)	254	17
474	E3h	2	VOL_SCART1 (D15-D8)	–	254	115
475	E4h	2	VOL_SCART1 (D 7-D5)	–	7	0
476	E5h	2	PRE_SCART	–	254	31
477	E6h	2	PRE_FM	4.5MHz(JAPAN)	254	34
478	E7h	2	PRE_FM	4.5MHz(Except BTSC-SAP mode)	254	32
479	E8h	2	PRE_FM	4.5MHz(BTSC-SAP)	254	60
480	E9h	2	PRE_FM	4.5MHz(Except KOREA–Dual/Stereo mode)	254	36
481	EAh	2	PRE_FM	4.5MHz(KOREA–Dual/Stereo)	254	34
482	EBh	2	PRE_FM	Except 4.5MHz(Except Dual/Stereo mode)	254	17
483	ECh	2	PRE_FM	Except 4.5MHz(Dual/Stereo mode)	254	27
484	EDh	2	PRE_NICAM	–	254	57
485	EEh	2	CM_THRESHOLD (D15-D8)	–	254	0
486	EFh	2	CM_THRESHOLD (D7 -D0)	–	254	36
487	F0h	2	AGC_LEVEL AGCL		3	0
488	F1h	2	TEXT H sync delay	–	127	0
489	F2h	2	TEXT V sync delay	–	127	50
490	F3h	2	TEXT_H_POSITION	–	254	42
491	F4h	2	TEXT_V_POSITION	–	254	39
492	F5h	2	Select for APC output [Except Europe model]	Main RF	2	1
493	F6h	2	L_PLL.GAIN		1	0
494	F7h	2	DVI-RNG (Range Scaling:1=Compress 0-255 to 16-235, 0=Bypass.)		1	1
495	F8h	2	HDMI EDID WRITE ENABLE	0:Disenable, 1:Enable	1	1
496	F9h	2	BPMA : Back Porch Mode, Field2 Position Adjustment		1	1
497	FAh	2	VCORA : VCO range select		3	0
498	00h	3	CRNTA : change pump current select		7	0
499	01h	3	TESTA : Matching test to allow increment of stability counter.		1	1
500	02h	3	PRMB : preamble criteria		31	6
501	03h	3	HDCP : HDCP enable criteria		31	12
502	04h	3	SMPLING	For CCD	255	0
503	05h	3	POLLING	For CCD	255	15
504	06h	3	START	For CCD	7	2
505	07h	3	TIMEOUT	For CCD	30	5
506	08h	3	STATUS	For CCD	7	2

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Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
507	09h	3	CCD-HP	For CCD	79	40
508	0Ah	3	CCD-CLK	For CCD	79	57
509	0Bh	3	Horizontal Position of OSD		15	7
510	0Ch	3	Vertical Position of OSD		15	7
511	0Dh	3	Component Frq.(fH) Setup (0:28/31/33/45KHz, 1:28/31/45KHz)		1	0
512	0Eh	3	Typical Value of Contrast OSD	DYNAMIC	31	31
513	0Fh	3	Input Select of TA1370 0:HD1/VD1, 1:HD3/VD3	D-SUB	1	0
514	10h	3	Temperature for Fun start (Temp_High)		254	58
515	11h	3	Temperature for Fun stop (Temp_Low)		254	55
516	12h	3	Display of internal temperature ℃ (Temperature)		125	−
517	13h	3	Display of Panel map version		255	−
518	14h	3	Accumulation time for Panel (hours)		65535	−
519	15h	3	Reset function of accumulation time for WVGA/LCD Panel	0:Normal 1:Reset	1	0
520	16h	3	Power Save/Screen Saver On/Off Setting at Initialize, Reset and Shipping	P.S/S.S 0:Off/20m 1:On/Off 2:Off/Off	2	0
521	17h	3	PC Power Save function (0: Impossible, 1: Possible)		1	1
522	18h	3	Distance of lowering Burn-in operation 0: 1 pixel/ 1: 2 pixel/ 2: 3 pixel		2	0
523	19h	3	Mode of lowering Burn-in movement 0:rhombus/1:cross/2:up&down/3:right&left		3	0
524	1Ah	3	Wait Time for POWER SAVE function(s)	VIDEO/PC	254	15
525	1Bh	3	BURN-IN enable/ disenable	0:Disenable, 1:Enable	1	1
526	1Ch	3	BURN-IN mode		2	2
527	1Dh	3	Recovery to an error of OSC frequency of Ceramic resonator for timer		62	34
528	1Eh	3	EURO DK-SECAM MASK(V=60) 0:Normal 1:Mask(V=60)		1	0
529	1Fh	3	Set Sound System at Auto mode of Sound Sys. (0: auto, 1: 4.5MHz)	Main	1	0
530	20h	3	Power condition at power save mode of PC mode after done RESET function	0:Keep last condition 1:Return to normal condition	1	0
531	21h	3	Select Wide mode for Europe model (Normal= 5/ For Service= 10)	0:Normal, 1:For service	1	0
532	22h	3	Thermo sensor function available or not 0: None, 1: Yes		1	0
533	23h	3	Video Input function available or not at RGB1 & RGB2 mode	0:Not Available, 1:Available	1	1
534	24h	3	EURO SOUND SYSTEM DK Disable 0:Enable, 1Disable		1	0
535	25h	3	Remote Function available 0: No, 1: Yes		1	1
536	26h	3	Key Function available 0: No, 1: Yes		1	1
537	27h	3	DVI-STB/RGB-COMPONENT Function available 0: No, 1: Yes		1	0
538	28h	3	Terminal Mode Function available 0: Not Available, 1: Available	RS232C	1	1
539	29h	3	Select color control (0: Asia, 1: South America)	Main/Sub	1	0
540	2Ah	3	Language (Refer to below)		6	0
541	2Bh	3	Hotel Mode(0: No, 1: Yes)		2	0
542	2Ch	3	Analog Data (0: Keep EEPROM, 1: Not Keep to EEPROM)		1	0
543	2Dh	3	Maximum Volume Limit		63	63
544	2Eh	3	Power Mode(0: Last mode, 1: Pos1, 2-7: V1-6, 8-9: RGB1-2)		9	0
545	2Fh	3	Dummy 545		−	−
546	30h	3	Channel Select (0: CCIR, 1: CHINA)		1	0
547	31h	3	Auto_sound 4.5 (0: Korea, 1: BTSC, 2: Japan)		2	0
548	32h	3	T/TEXT (0: None, 1: Yes)		1	1
549	33h	3	Dummy 549		−	−
550	34h	3	Channel Preset (0: VESTEL, 1: GIFU, 2: HAMA, 3: HFDM, 4: AUSTRALIA)		4	1
551	35h	3	V FREQ 60Hz Force (0: None, 1: Yes)		1	0
552	36h	3	Offset value of adjusted TINT	For COMPAL factory	20	11
553	37h	3	Use "TINT Offset↑" 0:No, 1:Yes	For COMPAL factory	1	0
554	38h	3	PDP-BLK ON/OFF	1: ON, 0: OFF	1	0
555	39h	3	IIC BUS Data/Clock Open (0: Close, 1: Open)		1	0
556	3Ah	3	Protect for Image Retention 0: Off, 1: On	Dynamic mode	4	4

Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
557	3Bh	3	Protect for Image Retention 0: Off, 1: On	Natural mode	4	4
558	3Ch	3	Protect for Image Retention 0: Off, 1: On	Cinema mode	4	4
559	3Dh	3	Dispersion Time of Sustain current 0: 2 Times, 1: 4 times	For Dynamic mode	1	0
560	3Eh	3	Dispersion Time of Sustain current 0: 2 Times, 1: 4 times	For Natural mode	1	1
561	3Fh	3	Dispersion Time of Sustain current 0: 2 Times, 1: 4 times	For Cinema mode	1	1
562	40h	3	Dispersion Time of Sustain current 0: 2 Times, 1: 4 times	For PC mode	1	1
563	41h	3	Dispersion Time of Sustain current 0: 2 Times, 1: 4 times	For PC-Movie mode	1	1
564	42h	3	Q mode 0:Freeze, 1: Move 1, 2: Move 2	For 50Hz[Dynamic] mode	2	1
565	43h	3	Q mode 0:Freeze, 1: Move 1, 2: Move 2	For 50Hz[Natural] mode	2	1
566	44h	3	Q mode 0:Freeze, 1: Move 1, 2: Move 2	For 50Hz[Cinema] mode	2	1
567	45h	3	Q mode 0:Freeze, 1: Move 1, 2: Move 2	For 60Hz[Dynamic] mode	2	1
568	46h	3	Q mode 0:Freeze, 1: Move 1, 2: Move 2	For 60Hz[Natural] mode	2	1
569	47h	3	Q mode 0: Freeze, 1: Move 1, 2: Move 2	For 60Hz [Cinema] mode	2	1
570	48h	3	Q mode 0: Freeze, 1: Move 1, 2: Move 2	For 70Hz (PC)	2	0
571	49h	3	Main/Sub YFRUR passage level [MYNRP6]	480i/576i (HDMI)	7	0
572	4Ah	3	[MYNRP7]	480p/576p (HDMI)	7	0
573	4Bh	3	[MYNRP8]	1080i-50/720p-50 (HDMI)	7	1
574	4Ch	3	[MYNRP8']	1080i-60/720p-60 (HDMI)	7	0
575	4Dh	3	Dummy575		–	–
576	4Eh	3	Gray Level of BM	Single/Index	31	4
577	4Fh	3	Display of BM version		127	–
578	51h	3	TA1391: SYNC SW Change	0: SYNC, 1: HDVD1&2	1	0
579	52h	3	According number of times of sync. existence judgment (M30625/TA1370)	—	31	2
580	53h	3	f V/fH Judgment source (0:M30625, 1:TA1370)	Component Mode	1	0
581	54h	3	f H According judgment number of times (M30625/TA1370)	—	31	2
582	55h	3	f V According judgment number of times (M30625/TA1370)	—	31	2
583	57h	3	f V According judgment number of times (TB1274)	—	31	2
584	58h	3	Lower Limits value for Sync Detect of 2ms interval	For AFC at TV mode	254	25
585	59h	3	Lower Limits value for Sync Detect of 2ms interval	For Free Running at TV mode	254	30
586	5Ah	3	Lower Limits value for Sync Detect of 2ms interval	For AUTO OFF at TV mode	254	25
587	5Bh	3	Lower Limits value for Sync Detect of 2ms interval	For Free Running at AV mode	254	30
588	5Ch	3	Lower Limits value for Sync Detect of 2ms interval	For Power Save at AV mode	254	5
589	5Dh	3	Upper Limits Value for Sync Detect of 2ms interval	For AFC at TV mode	254	40
590	5Eh	3	Upper Limits Value for Sync Detect of 2ms interval	For Free Running at TV mode	254	45
591	5Fh	3	Upper Limits Value for Sync Detect of 2ms interval	For AUTO OFF at TV mode	254	35
592	60h	3	Upper Limits Value for Sync Detect of 2ms interval	For Free Running at AV mode	254	45
593	61h	3	Upper Limits Value for Sync Detect of 2ms interval	For Power Save at AV mode	254	200
594	62h	3	V judgment result(Format board)0:Out of range, 128:No V input, 255:cancel judgment	50/60(Hz)	255	–
595	63h	3	H judgment result(Format board)0:Out of range, 128:No H input, 255:cancel judgment	15/28/31/33/45(kHz)	255	–
596	64h	3	V judgment result(Video board)0:Out of range, 128:No V input, 255: cancel judgment	50/60(Hz)	255	–
597	65h	3	H judgment result(Video board)0:Out of range, 128:No H input, 255: cancel judgment	15/28/31/33/45(kHz)	255	–
598	66h	3	COLOR SYSTEM CONTROL-MODE(0:BW, 2:3.58NTSC, 3:4.43NTSC, ･･･)	Main	–	–
599	67h	3	COLOR SYSTEM CONTROL-MODE(0:BW, 2:3.58NTSC, 3:4.43NTSC, ･･･)	Sub	–	–
600	68h	3	2ms Sync judgment count	Main	–	–
601	69h	3	2ms Sync judgment count	Sub	–	–
602	6Ah	3	TB1274 Read Data(00h)	Main	–	–
603	6Bh	3	TB1274 Read Data(01h)	Main	–	–
604	6Ch	3	TB1274 Read Data(00h)	Sub	–	–
605	6Dh	3	TB1274 Read Data(01h)	Sub	–	–
606	6Eh	3	MSP Read Data (CNTROL) (D15-D8)		–	–
607	6Fh	3	MSP Read Data (CNTROL) (D 7-D0)		–	–

Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
608	70h	3	MSP Read Data (STANDARD_RES) (D15-D8)		–	–
609	71h	3	MSP Read Data (STANDARD_RES) (D 7-D0)		–	–
610	72h	3	MSP Read Data (STATUS) (D15-D8)		–	–
611	73h	3	MSP Read Data (STATUS) (D 7-D0)		–	–
612	74h	3	TA1391FG Read Data(00h)		–	–
613	75h	3	TA1391FG Read Data(01h)		–	–
614	76h	3	TA1391FG Read Data(02h)		–	–
615	77h	3	TA1391FG Read Data(03h)		–	–
616	78h	3	TA1391FG Read Data(04h)		–	–
617	79h	3	TA1391FG Read Data(05h)		–	–
618	7Ah	3	TA1391FG Read Data(06h)		–	–
619	7Bh	3	TA1391FG Read Data(07h)		–	–
620	7Ch	3	TA1370G Read Data(00h)		–	–
621	7Dh	3	TA1370G Read Data(01h)		–	–
622	7Eh	3	SiI9993 Read Data SYNC1 : VSYNC/Clock detect/Sync detect 1		–	–
623	7Fh	3	SiI9993 Read Data NHRDL1 : N hardware value 1 low 7 bits		–	–
624	80h	3	SiI9993 Read Data NHRDM1 : N hardware value 1 mid 7 bits		–	–
625	81h	3	SiI9993 Read Data NHRDH1 : N hardware value 1 high 4 bits		–	–
626	82h	3	SiI9993 Read Data CHRDL1 : CTS hardware value 1 low 7 bits		–	–
627	83h	3	SiI9993 Read Data CHRDM1 : CTS hardware value 1 mid 7 bits		–	–
628	84h	3	SiI9993 Read Data CHRDH1 : CTS hardware value 1 high 4 bits		–	–
629	85h	3	SiI9993 Read Data ACR1 : ACR PLL hardware value 1		–	–
630	86h	3	SiI9993 Read Data ACRS1 : ACR PLL hardware value 1 by source		–	–
631	87h	3	SiI9993 Read Data SFREQ1 : "Extracted Sampling Frequency 1 channel status b24-27(same value at 0x30)"		–	–
632	88h	3	SiI9993 Read Data CLKFRQ1: Clock Accuracy/ Sampling Frequency 1		–	–
633	89h	3	SiI9993 Read Data ALNG1 : Audio length/ Audio length max 1		–	–
634	8Ah	3	SiI9993 Read Data MT_MD1 : AV mute/ HDMI mode 1		–	–
635	8Bh	3	SiI9993 Read Data VTYP1 : AVI infoframe type code 1（requested）		–	–
636	8Ch	3	SiI9993 Read Data VVER1 : AVI infoframe version code 1（requested）		–	–
637	8Dh	3	SiI9993 Read Data VINFO11: AVI infoframe data 1		–	–
638	8Eh	3	SiI9993 Read Data VINFO21:		–	–
639	8Fh	3	SiI9993 Read Data VINFO31:		–	–
640	90h	3	SiI9993 Read Data VINFO41:		–	–
641	91h	3	SiI9993 Read Data VINFO51:		–	–
642	92h	3	SiI9993 Read Data ATYP1 : AUDIO InfoFrame Type Code 1（requested）		–	–
643	93h	3	SiI9993 Read Data AVER1: AUDIO InfoFrame Version Code 1（requested）		–	–
644	94h	3	SiI9993 Read Data AINFO11: AUDIO InfoFrame Data Bytes 1		–	–
645	95h	3	SiI9993 Read Data AINFO21:		–	–
646	96h	3	SiI9993 Read Data AINFO31:		–	–
647	97h	3	SiI9993 Read Data AINFO41:		–	–
648	98h	3	SiI9993 Read Data AINFO51:		–	–
649	99h	3	Initialize function for EEPROM of Video PWB board		1	0
650	9Ah	3	Check condition of EEPROM of Video PWB board	0 :Normal 1: Abnormal (Failure or no assembly)	1	–
651	9Bh	3	W/B Initialization		1	–
652	9Ch	3	Gain adjustment of RGB amplifier (FLAON)	Main	–	–
653	9Dh	3	Gain adjustment of RGB amplifier	Sub	–	–
654	9Eh	3	Automatic White Peak Adj.	Single Picture mode	–	–
655	9Fh	3	Automatic Color Level Adj. (TB1274BF)	Main PAL/NTSC (composite)	–	–
656	A0h	3	Automatic Color Level Adj. (TB1274BF)	Sub PAL/NTSC (composite)	–	–
657	A1h	3	Automatic White Peak Adj.	Multi Picture mode	–	–
658	A2h	3	EEPROM Initialization (0: No, 1: Yes)		1	0
659	A3h	3	Enter to SUB adjust menu		–	–
660	A4h	3	Enter to service menu of FC sub mi-con		–	–

● Service adjustment items by I^2C-bus control (SUB adjust menu)

Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
0	00h	4	R DRIVE1 [RF/VIDEO/DSUB-COMP]	COOL	255	230
1	01h	4	G DRIVE1 [RF/VIDEO/DSUB-COMP]	COOL	255	230
2	02h	4	B DRIVE1 [RF/VIDEO/DSUB-COMP]	COOL	255	255
3	03h	4	R DRIVE2 [RF/VIDEO/DSUB-COMP]	NORMAL	255	230
4	04h	4	G DRIVE2 [RF/VIDEO/DSUB-COMP]	NORMAL	255	230
5	05h	4	B DRIVE2 [RF/VIDEO/DSUB-COMP]	NORMAL	255	230
6	06h	4	R DRIVE3 [RF/VIDEO/DSUB-COMP]	WARM	255	230
7	07h	4	B DRIVE3 [RF/VIDEO/DSUB-COMP]	WARM	255	230
8	08h	4	B DRIVE3 [RF/VIDEO/DSUB-COMP]	WARM	255	230
9	09h	4	R DRIVE4 [RF/VIDEO/DSUB-COMP]	BLACK&WHITE	255	230
10	0Ah	4	G DRIVE4 [RF/VIDEO/DSUB-COMP]	BLACK&WHITE	255	230
11	0Bh	4	B DRIVE4 [RF/VIDEO/DSUB-COMP]	BLACK&WHITE	255	230
12	0Ch	4	R DRIVE1 [DVI-PC/DVI-STB/DSUB-RGB]	COOL	255	230
13	0Dh	4	G DRIVE1 [DVI-PC/DVI-STB/DSUB-RGB]	COOL	255	230
14	0Eh	4	B DRIVE1 [DVI-PC/DVI-STB/DSUB-RGB]	COOL	255	255
15	0Fh	4	R DRIVE2 [DVI-PC/DVI-STB/DSUB-RGB]	NORMAL	255	230
16	10h	4	G DRIVE2 [DVI-PC/DVI-STB/DSUB-RGB]	NORMAL	255	230
17	11h	4	B DRIVE2 [DVI-PC/DVI-STB/DSUB-RGB]	NORMAL	255	230
18	12h	4	R DRIVE3 [DVI-PC/DVI-STB/DSUB-RGB]	WARM	255	230
19	13h	4	G DRIVE3 [DVI-PC/DVI-STB/DSUB-RGB]	WARM	255	230
20	14h	4	B DRIVE3 [DVI-PC/DVI-STB/DSUB-RGB]	WARM	255	230
21	15h	4	R DRIVE4 [DVI-PC/DVI-STB/DSUB-RGB]	BLACK&WHITE	255	230
22	16h	4	G DRIVE4 [DVI-PC/DVI-STB/DSUB-RGB]	BLACK&WHITE	255	230
23	17h	4	B DRIVE4 [DVI-PC/DVI-STB/DSUB-RGB]	BLACK&WHITE	255	230
24	18h	4	Brightness Center (CM)	NTSC/PAL/mat	254	128
25	19h	4	Brightness Center (CM)	Scart-RGB(50/60Hz)	254	128
26	1Ah	4	Brightness Center (CM)	480i/576i/480p/576p	254	128
27	1Bh	4	Brightness Center (CM)	1080i-50/60/720p	254	128
28	1Ch	4	Brightness Center (CM)	DVI-PC	254	128
29	1Dh	4	Brightness Center (CM)	DVI-STB	254	135
30	1Eh	4	Brightness Center (CM)	DSUB-RGB	254	128
31	1Fh	4	Brightness Center (CM)	Expand DSUB-RGB (Reserved)	254	128
32	20h	4	Brightness Center (CM)	HDMI	254	133
33	21h	4	Brightness Center (CM) offset	AV1	254	127
34	22h	4	Brightness Center (CM) offset	AV2	254	127
35	23h	4	Brightness Center (CM) offset	AV3	254	127
36	24h	4	Brightness Center (CM) offset	AV4	254	127
37	25h	4	Brightness Center (CM) offset	AV5	254	127
38	26h	4	Brightness Center (CM) offset	DSUB-COMP	254	127
39	27h	4	Color Center (CM)	SD(YCbCr)(50Hz)	127	58
40	28h	4	Color Center (CM)	SD(YCbCr)(60Hz)	127	60
41	29h	4	Color Center (CM)	Scart-RGB(50/60Hz)	127	65
42	2Ah	4	Color Center (CM)	HD(YPbPr)(50/60Hz)	127	71
43	2Bh	4	Color Center (CM)	DVI-PC	127	64
44	2Ch	4	Color Center (CM)	DVI-STB (480i/576i/480p/576p)	127	100
45	2Dh	4	Color Center (CM)	DVI-STB (1080i-50/60/720p)	127	100
46	2Eh	4	Color Center (CM)	DVI-STB (VGA)	127	100
47	2Fh	4	Color Center (CM)	DSUB-RGB	127	64
48	30h	4	Tint Center (CM)	PAL	254	131
49	31h	4	Tint Center (CM)	Scart-RGB(50Hz)	254	126

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Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
50	32h	4	Tint Center (CM)	Scart-RGB(60Hz)	254	126
51	33h	4	Tint Center (CM)	SD(YcbCr)(50Hz)	254	131
52	34h	4	Tint Center (CM)	SD(YcbCr)(60Hz)	254	125
53	35h	4	Tint Center (CM)	HD(YpbPr)(50/60Hz)	254	125
54	36h	4	Tint Center (CM)	DVI-PC	254	128
55	37h	4	Tint Center (CM)	DVI-STB (480i/576i/480p/576p)	254	125
56	38h	4	Tint Center (CM)	DVI-STB (1080i-50/60/720p)	254	125
57	39h	4	Tint Center (CM)	DVI-STB (VGA)	254	125
58	3Ah	4	Tint Center (CM)	DSUB-RGB	254	128
59	3Bh	4	Center of Sharpness (HV Enhancer Gain for Y)	RF	31	15
60	3Ch	4	Center of Sharpness (HV Enhancer Gain for Y)	VIDEO	31	15
61	3Dh	4	Center of Sharpness (HV Enhancer Gain for Y)	Scart-RGB(50/60Hz)	31	20
62	3Eh	4	Center of Sharpness (HV Enhancer Gain for Y)	480i/576i	31	20
63	3Fh	4	Center of Sharpness (HV Enhancer Gain for Y)	480p/576p	31	20
64	40h	4	Center of Sharpness (HV Enhancer Gain for Y)	720p	31	20
65	41h	4	Center of Sharpness (HV Enhancer Gain for Y)	1080i-50/60	31	20
66	42h	4	Center of Sharpness (HV Enhancer Gain for Y)	TEXT(for split)	31	19
67	43h	4	Center of Sharpness (HV Enhancer Gain for Y)	DVI-STB (480i/576i)	31	20
68	44h	4	Center of Sharpness (HV Enhancer Gain for Y)	DVI-STB (480p/576p)	31	20
69	45h	4	Center of Sharpness (HV Enhancer Gain for Y)	DVI-STB (720p)	31	20
70	46h	4	Center of Sharpness (HV Enhancer Gain for Y)	DVI-STB (1080i-50/60)	31	20
71	47h	4	Center of Sharpness (HV Enhancer Gain for Y)	DVI-STB (VGA)	31	20
72	48h	4	Contrast Center (CM)	RF	254	137
73	49h	4	Contrast Center (CM)	AV1	254	137
74	4Ah	4	Contrast Center (CM)	AV2	254	137
75	4Bh	4	Contrast Center (CM)	AV3	254	137
76	4Ch	4	Contrast Center (CM)	AV4	254	137
77	4Dh	4	Contrast Center (CM)	AV5	254	137
78	4Eh	4	Contrast Center (CM)	DVI-PC	254	128
79	4Fh	4	Contrast Center (CM)	DVI-STB (With Setup)	254	134
80	51h	4	Contrast Center (CM)	DVI-STB (Without Setup)	254	115
81	52h	4	Contrast Center (CM)	DSUB-RGB	254	128
82	53h	4	Contrast Center (CM)	Expand DSUB-RGB (Reserved)	254	128
83	54h	4	Contrast Center (CM)	DSUB-COMP	254	128
84	55h	4	Maximum Value of Contrast at REAL/NORMAL mode		254	188
85	57h	4	Offset value of contrast data at SPLIT mode		120	53
86	58h	4	Offset value of gain for Black Stretch function	Except OFF/LOW/HIGH mode	63	30
87	59h	4	Horizontal Enhance	TEXT	3	3
88	5Ah	4	Vertical Enhance	TEXT	3	3
89	5Bh	4	Horizontal Filter Switching [HHPF0]	NTSC/480i	1	0
90	5Ch	4	(Expanding Adaptation Enhancer) [HHPF1]	PAL/576i	1	0
91	5Dh	4	[HHPF2]	480p/576p/1080i-50/60/720p	1	0
92	5Eh	4	Horizontal Coring Amount [HECOR1]	NTSC-RF	15	8
93	5Fh	4	(Expanding Adaptation Enhancer) [HECOR2]	PAL-RF/Multi	15	8
94	60h	4	[HECOR3]	NTSC-VIDEO	15	3
95	61h	4	[HECOR4]	PAL-VIDEO	15	3
96	62h	4	[HECOR5']	Scart-RGB(50/60Hz)	15	10
97	63h	4	[HECOR5]	480i/576i	15	15
98	64h	4	[HECOR6]	480p/576p	15	5
99	65h	4	[HECOR7]	1080i-50/60/720p	15	1

Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
100	66h	4	[HECORPC]	PC	15	1
101	67h	4	Vertical Coring Amount [VECOR1]	NTSC-RF	15	3
102	68h	4	(Expanding Adaptation Enhancer) [VECOR2]	PAL-RF/Multi	15	3
103	69h	4	[VECOR3]	NTSC-VIDEO	15	0
104	6Ah	4	[VECOR4]	PAL-VIDEO	15	0
105	6Bh	4	[VECOR5']	Scart-RGB(50/60Hz)	15	10
106	6Ch	4	[VECOR5]	480i/576i	15	0
107	6Dh	4	[VECOR6]	480p/576p	15	15
108	6Eh	4	[VECOR7]	1080i-50/60/720p	15	15
109	6Fh	4	[VECORPC]	PC	15	0
110	70h	4	Enhancer gain of VH for C	TEXT	31	0
111	71h	4	Coring Amplitude for Y/G [YC0R0]	NTSC/PAL-RF/Multi	7	7
112	72h	4	[YC0R1]	NTSC/PAL-VIDEO	7	6
113	73h	4	[YC0R2]	480i/576i/Scart-RGB(50/60Hz)	7	4
114	74h	4	[YC0R3]	480p/576p	7	1
115	75h	4	[YC0R4]	1080i-50/60/720p	7	1
116	76h	4	[YC0R5]	NTSC/PAL-S input	7	5
117	77h	4	Coring Amplitude for B-Y/B, R-Y/R [CC0R0]	NTSC/PAL/480i/576i/Multi	7	1
118	78h	4	[CC0R1]	480p/576p/1080i-50/60/720p	7	1
119	79h	4	Main YFRNR Input Gain 2-picture [MYNRG0]	Except HD-HD	7	1
120	7Ah	4	(HD-NTSC, HD-PAL sub) [MYNRG1]	HD-HD	7	4
121	7Bh	4	4-picture [MYNRG2]	NT-* /PAL-*	7	1
122	7Ch	4	[MYNRG3]	HD-*	7	4
123	7Dh	4	Sub YFRNR Input Gain [YCNRG0]	2-picture	7	4
124	7Eh	4	[YCNRG1]	4-picture/12-picture	7	1
125	7Fh	4	Main CFRNR Input Gain 2-picture [MCNRG0]	Except HD-HD	7	4
126	80h	4	(HD-NTSC, HD-PAL sub) [MCNRG1]	HD-HD	7	4
127	81h	4	[MCNRG2]	NT-* /PAL-*	7	4
128	82h	4	[MCNRG3]	HD-*	7	4
129	83h	4	Sub CFRNR Input Gain [SCNRG0]	2-picture	7	4
130	84h	4	[SCNRG1]	4-picture/12-picture	7	4
131	85h	4	Vertical Enhancer Gain for Y/G [YVEG0]	NTSC/PAL(except -RF)/480i/576i	15	15
132	86h	4	[YVEG1]	480p/576p	15	5
133	87h	4	[YVEG2]	1080i-50/60/720p	15	15
134	88h	4	[YVEG3]	PAL(-RF)/Multi	15	10
135	89h	4	Vertical DSB Gain for Y/G [YVDSBG0]	NTSC/PAL/480i/576i/Multi	3	3
136	8Ah	4	[YVDSBG1]	480p/576p	3	2
137	8Bh	4	[YVDSBG2]	1080i-50/60/720p	3	3
138	8Ch	4	Vertical DSB Coring for Y/G [YVDSBC0]	NTSC/PAL/480i/576i/Multi	7	7
139	8Dh	4	[YVDSBC1]	480p/576p/1080i-50/60/720p	7	7
140	8Eh	4	Vertical Enhancer CLIP for Y/G 0:LTI [YVECLP0]	NTSC/PAL/480i/576i/Multi	1	1
141	8Fh	4	[YVECLP1]	480p/576p/1080i-50/60/720p	1	0
142	90h	4	Vertical CLIP Offset Level for Y/G [YVECLPL0]	NTSC/PAL/480i/576i/Multi	15	15
143	91h	4	[YVECLPL1]	480p/576p/1080i-50/60/720p	15	15
144	92h	4	Vertical Non-Linear Peaking for Y/G [YVNLP0]	NTSC/PAL/480i/576i/Multi	63	0
145	93h	4	[YVNLP1]	480p/576p/1080i-50/60/720p	63	0
146	94h	4	Horizontal Enhancer Gain for Y/G [YHEG0]	NTSC/PAL(except -RF)/480i/576i	15	15
147	95h	4	[YHEG1]	480p/576p	15	15
148	96h	4	[YHEG2]	1080i-50/60/720p	15	15
149	97h	4	[YHEG3]	PAL(-RF)/Multi	15	15

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Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
150	98h	4	Horizontal DSB Gain for Y/G [YHDSBG0]	NTSC/PAL/480i/576i/Multi	3	2
151	99h	4	[YHDSBG1]	480p/576p	3	3
152	9Ah	4	[YHDSBG2]	1080i-50/60/720p	3	3
153	9Bh	4	Horizontal DSB Coring for Y/G [YHDSBC0]	NTSC/PAL/480i/576i/Multi	7	1
154	9Ch	4	[YHDSBC1]	480p/576p/1080i-50/60/720p	7	7
155	9Dh	4	Horizontal Enhancer CLIP for Y/G 0:LTI [YHDSBC0]	NTSC/PAL/480i/576i/Multi	1	0
156	9Eh	4	[YHDSBC1]	480p/576p/1080i-50/60/720p	1	0
157	9Fh	4	Horizontal CLIP Offset Level for Y/G [YHECLPL0]	RF/Multi	15	15
158	A0h	4	[YHECLPL1]	NTSC/PAL-VIDEO	15	15
159	A1h	4	[YHECLPL3]	480i/576i/Scart-RGB(50/60Hz)	15	4
160	A2h	4	[YHECLPL2]	480p/576p/1080i-50/60/720p	15	15
161	A3h	4	Horizontal Non-Linear Peaking for Y/G [YHNLP0]	NTSC/PAL/480i/576i/Multi	63	0
162	A4h	4	[YHNLP1]	480p/576p/1080i-50/60/720p	63	5
163	A5h	4	Horizontal HPF Peak Frequency Switching for Y/G [YHHPF0]	NTSC/PAL/480i/576i/Multi	3	2
164	A6h	4	[YHHPF1]	480p/576p	3	1
165	A7h	4	[YHHPF2]	1080i-50/60/720p	3	1
166	A8h	4	Initial value of Contrast (degradation reduction 1)	Extend 1 of Panel Life function	127	17
167	A9h	4	Interval time of correction time (degradation reduction 1)	Extend 1 of Panel Life function	127	20
168	AAh	4	Additional value of Contrast (degradation reduction 1)	Extend 1 of Panel Life function	127	1
169	ABh	4	Initial value of Contrast (degradation reduction 2)	Extend 2 of Panel Life function	127	1
170	ACh	4	Interval time of correction time (degradation reduction 2)	Extend 2 of Panel Life function	127	12
171	ADh	4	Additional value of Contrast (degradation reduction 2)	Extend 2 of Panel Life function	127	1
172	AEh	4	Menu Init. Contrast (-31[0]～+40[71])	For Dynamic	71	62
173	AFh	4	Menu Init. Contrast (-31[0]～+40[71])	For Natural	71	62
174	B0h	4	Menu Init. Contrast (-31[0]～+40[71])	For Cinema	71	57
175	B1h	4	Menu Init. Brightness (-31[0]～+31[62])	For Dynamic	62	31
176	B2h	4	Menu Init. Brightness (-31[0]～+31[62])	For Natural	62	31
177	B3h	4	Menu Init. Brightness (-31[0]～+31[62])	For Cinema	62	33
178	B4h	4	Menu Init. Color (-31[0]～+31[62])	For Dynamic	62	35
179	B5h	4	Menu Init. Color (-31[0]～+31[62])	For Natural	62	31
180	B6h	4	Menu Init. Color (-31[0]～+31[62])	For Cinema	62	26
181	B7h	4	Menu Init. Sharpness (-15[0]～+15[30])	For Dynamic	30	10
182	B8h	4	Menu Init. Sharpness (-15[0]～+15[30])	For Natural	30	7
183	B9h	4	Menu Init. Sharpness (-15[0]～+15[30])	For Cinema	30	5
184	BAh	4	Menu Init. Color Temp.(Cool[0]/Normal[1]/Warm[2]/B&W[3])	For Dynamic	3	0
185	BBh	4	Menu Init. Color Temp.(Cool[0]/Normal[1]/Warm[2]/B&W[3])	For Natural	3	1
186	BCh	4	Menu Init. Color Temp.(Cool[0]/Normal[1]/Warm[2]/B&W[3])	For Cinema	3	2
187	BDh	4	Menu Init. Black stretch (Off[0]/Low[1]/Mid.[2]/High[3])	For Dynamic	3	2
188	BEh	4	Menu Init. Black stretch (Off[0]/Low[1]/Mid.[2]/High[3])	For Natural	3	1
189	BFh	4	Menu Init. Black stretch (Off[0]/Low[1]/Mid.[2]/High[3])	For Cinema	3	0
190	C0h	4	Menu Init. YNR (Off[0]/Low[1]/High[2])	For Dynamic	2	0
191	C1h	4	Menu Init. YNR (Off[0]/Low[1]/High[2])	For Natural	2	0
192	C2h	4	Menu Init. YNR (Off[0]/Low[1]/High[2])	For Cinema	2	0
193	C3h	4	Menu Init. LTI (Off[0]/Low[1]/Mid.[2]/High[3])	For Dynamic	3	0
194	C4h	4	Menu Init. LTI (Off[0]/Low[1]/Mid.[2]/High[3])	For Natural	3	0
195	C5h	4	Menu Init. LTI (Off[0]/Low[1]/Mid.[2]/High[3])	For Cinema	3	0
196	C6h	4	Center of Sharpness (HV Enhancer Gain for Y)	HDMI (480i/576i)	31	20
197	C7h	4	Center of Sharpness (HV Enhancer Gain for Y)	HDMI (480p/576p)	31	20
198	C8h	4	Center of Sharpness (HV Enhancer Gain for Y)	HDMI (720p)	31	20

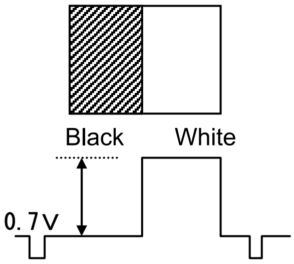
Adj.No	Factory Adj.		Adjust Items	Mode	Max	Init.
	(h)	Mode				
199	C9h	4	Center of Sharpness (HV Enhancer Gain for Y)	HDMI (1080i-50/60)	31	20
200	CAh	4	Center of Sharpness (HV Enhancer Gain for Y)	HDMI (VGA)	31	20
201	CBh	4	Color Center (CM)	HDMI-YcbCr(50Hz:576i/576p)	127	65
202	CCh	4	Color Center (CM)	HDMI-YcbCr(60Hz:480i/480p)	127	55
203	CDh	4	Color Center (CM)	HDMI-YPbPr(1080i-50/60/720p)	127	67
204	CEh	4	Tint Center (CM)	HDMI-YcbCr(50Hz:576i/576p)	254	126
205	CFh	4	Tint Center (CM)	HDMI-YcbCr(60Hz:480i/480p)	254	118
206	D0h	4	Tint Center (CM)	HDMI-YPbPr(1080i-50/60/720p)	254	112
207	D1h	4	Sharpness Gain(RF) BG/DK/I	Main	15	10
208	D2h	4	Sharpness Gain(RF) M	Main	15	8
209	D3h	4	Sharpness Gain(RF) L	Main	15	8
210	D4h	4	Sharpness Gain(RF) L'	Main	15	8
211	D5h	4	Sharpness Gain(VIDEO) PAL	Main	15	10
212	D6h	4	Sharpness Gain(VIDEO) NTSC3.58	Main	15	10
213	D7h	4	Sharpness Gain(VIDEO) SECAM,B/W	Main	15	10
214	D8h	4	Sharpness Gain(VIDEO) NTSC4.43	Main	15	10
215	D9h	4	Sharpness Gain(VIDEO) N-PAL	Main	15	10
216	DAh	4	Sharpness Gain(VIDEO) M-PAL	Main	15	10
217	DBh	4	Sharpness Gain(S.VIDEO)	Main	15	7
218	DCh	4	Horizontal Enhancer Gain for Y/G [YHEG2]	720P-50	15	15

● Factory Reset

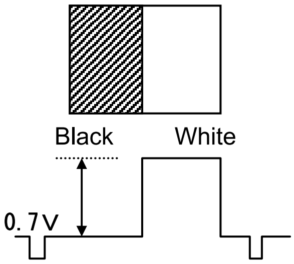
After all of the adjustments of main chassis are finished, perform FACTORY RESET.

Press the SUB-POWER(⏻) button, INPUT SELECT(⇥) button and ▲ button at the same time, and hold for more than 5 seconds.

The unit is set to factory settings.

Item	RGB Amplitude Adjustment (PC D-Sub input)	Adj. point	I^{2}C
Adjustment Preparations	Adjustment Procedures	Remarks	
(1) Input RGB amplitude adjustment signal of VGA (60Hz) into RGB2 [D-sub] terminal. <NOTE> Heat-run the set more than 30 minutes before the adjustment.	(1) Receive PC signal (VGA [60Hz]), and indicate Service Adjustment Menu. (2) Select No.652 of Service Adjustment Menu. Press「OK」 key more than 2 seconds to start the automatic adjustment. The adjustment completes when the OSD reappears.	RGB amplitude gain adjustment Black pattern: Set pedestal level. Characters must not be inserted into this signal. 	

[NOTE]
Never adjust without use of the specified signal. If that were done by mistake, the picture would become abnormal in black level, contrast and color. In this case, it will be recovered by re-adjustment in the specified way.

Item	RGB Amplitude Adjustment (Main/Sub)	Adj. point	I^{2}C
Adjustment Preparations	Adjustment Procedures	Remarks	
(1) Input 576p or 480p adjustment signal into AV4 terminal. (2) <NOTE> Heat-run the set more than 30 minutes before the adjustment.	(1) Receive 576p or 480p adjustment signal on AV4 terminal input. Indicate Service Adjustment Menu. (2) Select No.652 (RGB amplitude gain adjustment Main) of Service Adjustment Menu. Press [OK] key more than 2 seconds to start the automatic adjustment. The adjustment completes when the indication [Auto Mode] at the bottom of the screen disappears. (3) Select No.653 (RGB amplitude gain adjustment Sub) of Service Adjustment Menu. Press [OK] key more than 2 seconds to start the automatic adjustment. The adjustment completes when the indication [Auto Mode] at the bottom of the screen disappears.	RGB amplitude gain adjustment signal Black pattern: Set pedestal level. Characters must not be inserted into this signal. 	

[NOTE]
Never adjust without use of the specified signal. If that were done by mistake, the picture would become abnormal in black level, contrast and color. In this case, it will be recovered by re-adjustment in the specified way.

32LD7200 (PW2L)

Video Color temperature adjustment.

Preparation

1. Turn on the set and perform pre-heat run more than 30 min.
2. Set the output of component video signal generator to white raster (Ratio:100%)
3. Component signal (480i)
   Video level: 0.56Vp-p
   SYNC: 0.286Vp-p
   Set-up level 0V
4. Set video setting to reset with component(480i) input.
5. Set picture mode of Picture menu to Dynamic.
6. Set contrast mode of Picture menu to Auto.
7. Confirm that the mode is set as 'Factory setting mode'.
8. No.659 are chosen and "Enter" key is pushed.

Adjustment

1.(1) Cool：17500K-2MCD
x=0.262±0.005
y=0.262±0.005
(2) Ensure that Adjustment NO 0,1 are set as 230. NO2 is set as 255.
If initial x and y value are larger than specification,
No.0:R drive(cool) will be adjusted(decrease from 230)
No.1:G drive(cool) will be adjusted(decrease from 230)
No.2:B drive(cool) is set as 255
(3) If initial x or y value is smaller than specification.
No2:B drive(cool) will be adjusted(decrease from 255),
until one of x,y is in spec and another value is higher than spec.
(* When both x and y are in spec value, it is end of adjustment)
(4)According to a x and y value, the following adjustment of (4)-1 or (4)-2.
(4)-1 If x value is higher than spec.
No.0:R drive(cool) will be adjusted(decrease from 230)

(4)-2 If y value is higher than spec,
No1:G drive(cool) will be adjusted(decrease from 230)
* No.0 or No.1 should be set as 230

2.(1) Normal：(9500K)
x=0.285±0.005
y=0.298±0.005
(2) Ensure that Adjustment NO.3,4＆5 are all set as 230.
In factory setting mode
No.5:B drive(normal) will be adjusted(decrease from 230),
until one of x,y is in spec and another value is higher than spec.
(* When both x and y are in spec value, it is end of adjustment)
(3) According to x and y value, the following adjustment of (3)-1 or (3)-2.
(3)-1 If x value is higher than spec.
No.3:R drive(normal) will be adjusted(decrease from 230)

(3)-2 If y value is higher than spec,
No4:G drive(normal) will be adjusted(decrease from 230)
No.3 or No.4 should be set as 230.

3.(1) Warm:(7500K)
x=0.302±0.005
y=0.317±0.005
(2) Ensure that Adjustment NO.6,7&8 are all set as 230.
In factory setting mode
No.8:B drive(warm) will be adjusted(decrease from 230),
until one of x,y is in spec and another value is higher than spec.
(* When both x and y are in spec value, it is end of adjustment)
(3) According to x and y value, the following adjustment of (3)-1 or (3)-2.
(3)-1 If x value is higher than spec.
No.6:R drive(warm) will be adjusted(decrease from 230)

(3)-2 If y value is higher than spec,
No7:G drive(warm) will be adjusted(decrease from 230)
No.6 or No.7 should be set as 230.

4.(1) B/W:(5400K)
x=0.335±0.005
y=0.343±0.005
(2) Ensure that Adjustment NO.9,10&11 are all set as 230.
In factory setting mode
No.11:B drive(B/W) will be adjusted(decrease from 230),
until one of x,y is in spec and another value is higher than spec.
(* When both x and y are in spec value, it is end of adjustment.)
(3) According to x and y value, the following adjustment of (3)-1 or (3)-2.
(3)-1 If x value is higher than spec.
No.9:R drive(B/W) will be adjusted(decrease from 230)

(3)-2 If y value is higher than spec,
No.10:G drive(B/W) will be adjusted(decrease from 230)
No.9 or No.10 should be set as 230.

PC color temperature adjustment.

Preparation

1. Turn on the set and perform pre-heat run more than 30 min.
2. Set the output of RGB signal generator to white raster (Ratio:100%)
   RGB2 [D-sub]
   Signal: VGA (75) 0.56V
   (No set up)
   Window ratio: 100%
3. Set video setting to reset with VGA (75) input.
4. Confirm that the mode is set as ‘Factory setting mode’.

Adjustment

1.(1) Cool:17500K-2MCD
x=0.262±0.005
y=0.262±0.005
(2) Ensure that Adjustment NO 12,13 are set as 230. NO14 is set as 255.
If initial x and y value are larger than specification,
No.12:R drive(cool) will be adjusted(decrease from 230)
No.13:G drive(cool) will be adjusted(decrease from 230)
No.14:B drive(cool) is set as 255
(3) If initial x or y value is smaller than specification.
No14:B drive(cool) will be adjusted(decrease from 255),
until one of x,y is in spec and another value is higher than spec.
(* When both x and y are in spec value, it is end of adjustment)

(4)According to a x and y value, the following adjustment of (4)-1 or (4)-2.
(4)-1 If x value is higher than spec.
No.12:R drive(cool) will be adjusted(decrease from 230)

(4)-2 If y value is higher than spec,
No13:G drive(cool) will be adjusted(decrease from 230)
* No.12 or No.13 should be set as 230

2.(1) Normal：(9500K）
x=0.285±0.005
y=0.298±0.005
(2) Ensure that Adjustment NO.15,16＆17 are all set as 230.
In factory setting mode
No.17:B drive(normal) will be adjusted(decrease from 230),
until one of x,y is in spec and another value is higher than spec.
(* When both x and y are in spec value, it is end of adjustment)
(3) According to x and y value, the following adjustment of (3)-1 or (3)-2.
(3)-1 If x value is higher than spec.
No.15:R drive(normal) will be adjusted(decrease from 230)

(3)-2 If y value is higher than spec,
No.16:G drive(normal) will be adjusted(decrease from 230)
No.15 or No.16 should be set as 230.

3.(1) Warm:(7500K)
x=0.302±0.005
y=0.317±0.005
(2) Ensure that Adjustment NO.18,19＆20 are all set as 230.
In factory setting mode
No.20:B drive(warm) will be adjusted(decrease from 230),
until one of x,y is in spec and another value is higher than spec.
(* When both x and y are in spec value, it is end of adjustment)
(3) According to x and y value, the following adjustment of (3)-1 or (3)-2.
(3)-1 If x value is higher than spec.
No.18:R drive(warm) will be adjusted(decrease from 230)

(3)-2 If y value is higher than spec,
No19:G drive(warm) will be adjusted(decrease from 230)
No.18 or No.19 should be set as 230.

4.(1) B/W:(5400K)
x=0.335±0.005
y=0.343±0.005
(2) Ensure that Adjustment NO.21,22＆23 are all set as 230.
In factory setting mode
No.23:B drive(B/W) will be adjusted(decrease from 230),
until one of x,y is in spec and another value is higher than spec.
(* When both x and y are in spec value, it is end of adjustment.)
(3) According to x and y value, the following adjustment of (3)-1 or (3)-2.
(3)-1 If x value is higher than spec.
No.21:R drive(B/W) will be adjusted(decrease from 230)

(3)-2 If y value is higher than spec,
No.22:G drive(B/W) will be adjusted(decrease from 230)
No.21 or No.22 should be set as 230.

7. Troubleshooting

● How to get to Burn-in mode

This mode displays the test patterns of some single color raster in turn. These signals are from built-in generator of LCD panel. So it can be presumed that maybe the panel has some trouble when the screen of Burn-in mode is abnormal.

Using the center of the upper control buttons with the set turned off (standby) can activate this mode.

Press the SUB-POWER(⏻|) button, INPUT SELECT(⎆) button and VOLUME DOWN(−◢) button at the same time, and hold for more than 5 seconds.

The set turns on with single color raster and the OSD of [BURN IN: ON].

To escape from this mode, press the SUB-POWER(⏻|) button, INPUT SELECT(⎆) button and ▲ button at the same time, and hold for more than 5 seconds. Burn-in mode will be released.

● How to recover the remote and the center of the upper key function

If remote and the center of the upper key cannot operate after miss set special function by the center of the upper keys, these functions can recover by below method.

Press the SUB-POWER(⏻|) button, INPUT SELECT(⎆) button and ▼ button at the same time, and hold for more than 5 seconds.

The set turns on the service menu mode.

Select No.535 and data set from [0] to [1].

Or

Press the SUB-POWER(⏻|) button and VOLUME UP (+◢) button at the same time, and hold for more than 5 seconds

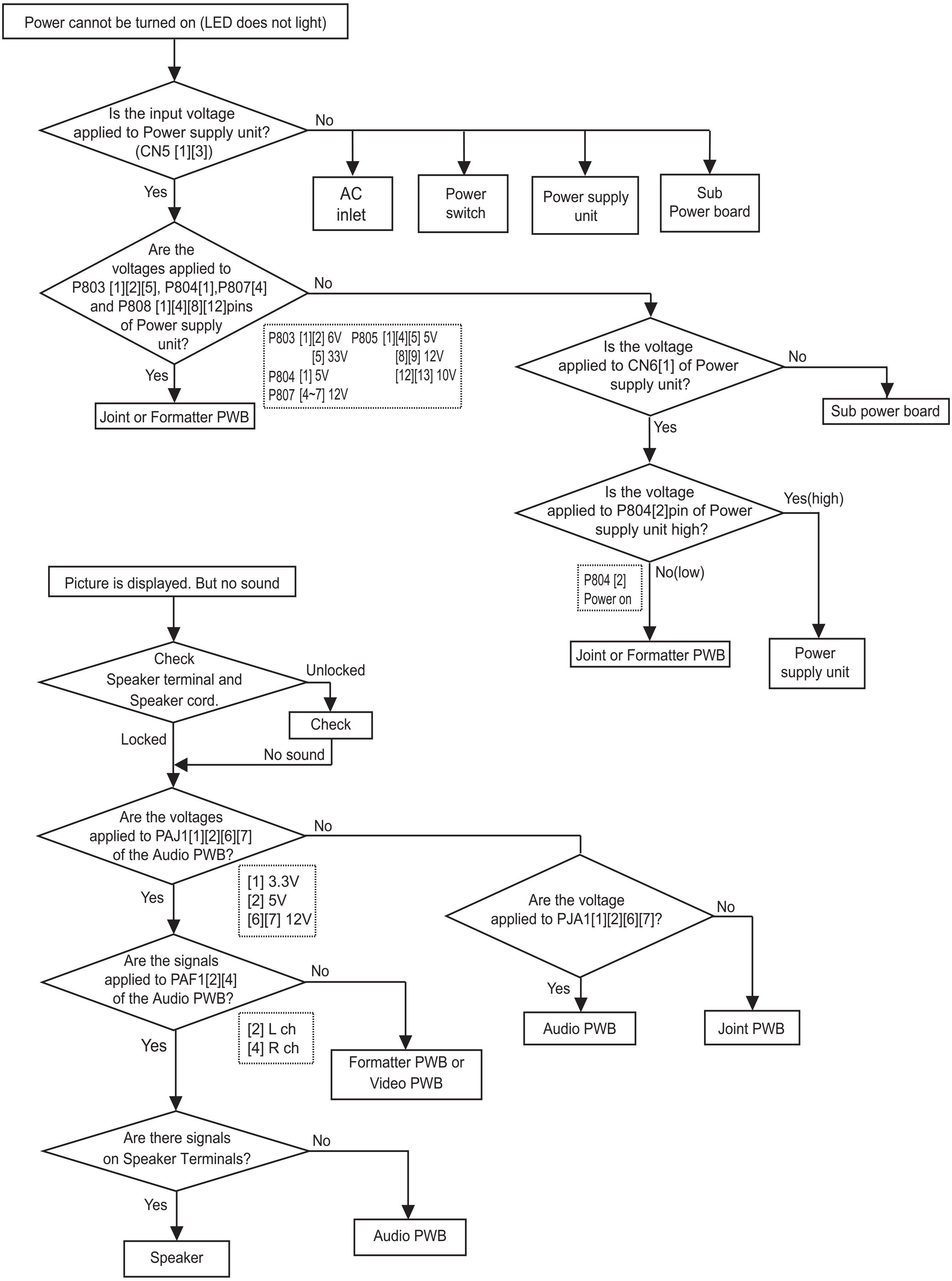
●

How to check method of the use accumulation time for panel.

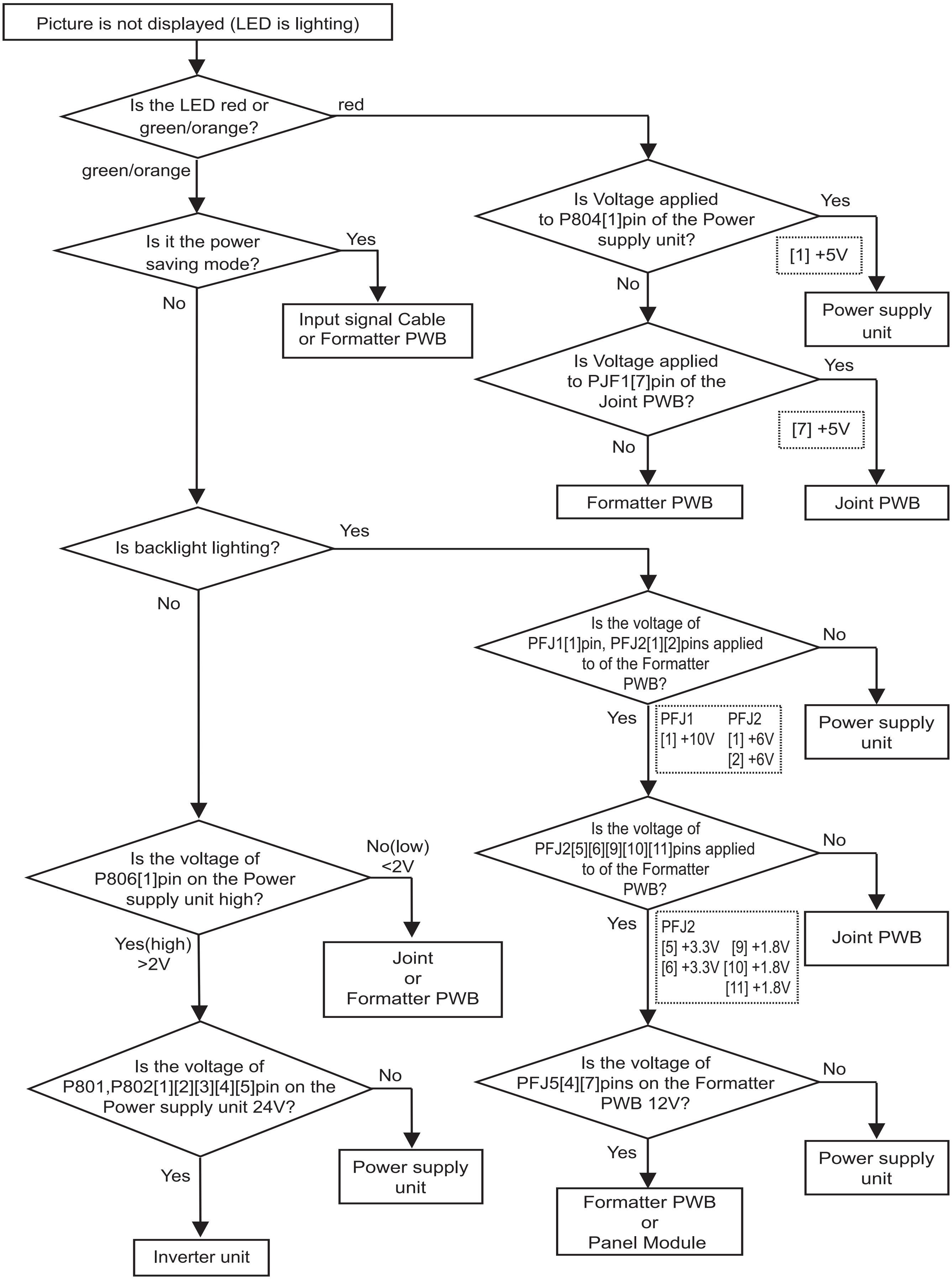
Select No.518 of Service Adjustment Menu.

32LD7200 (PW2L)

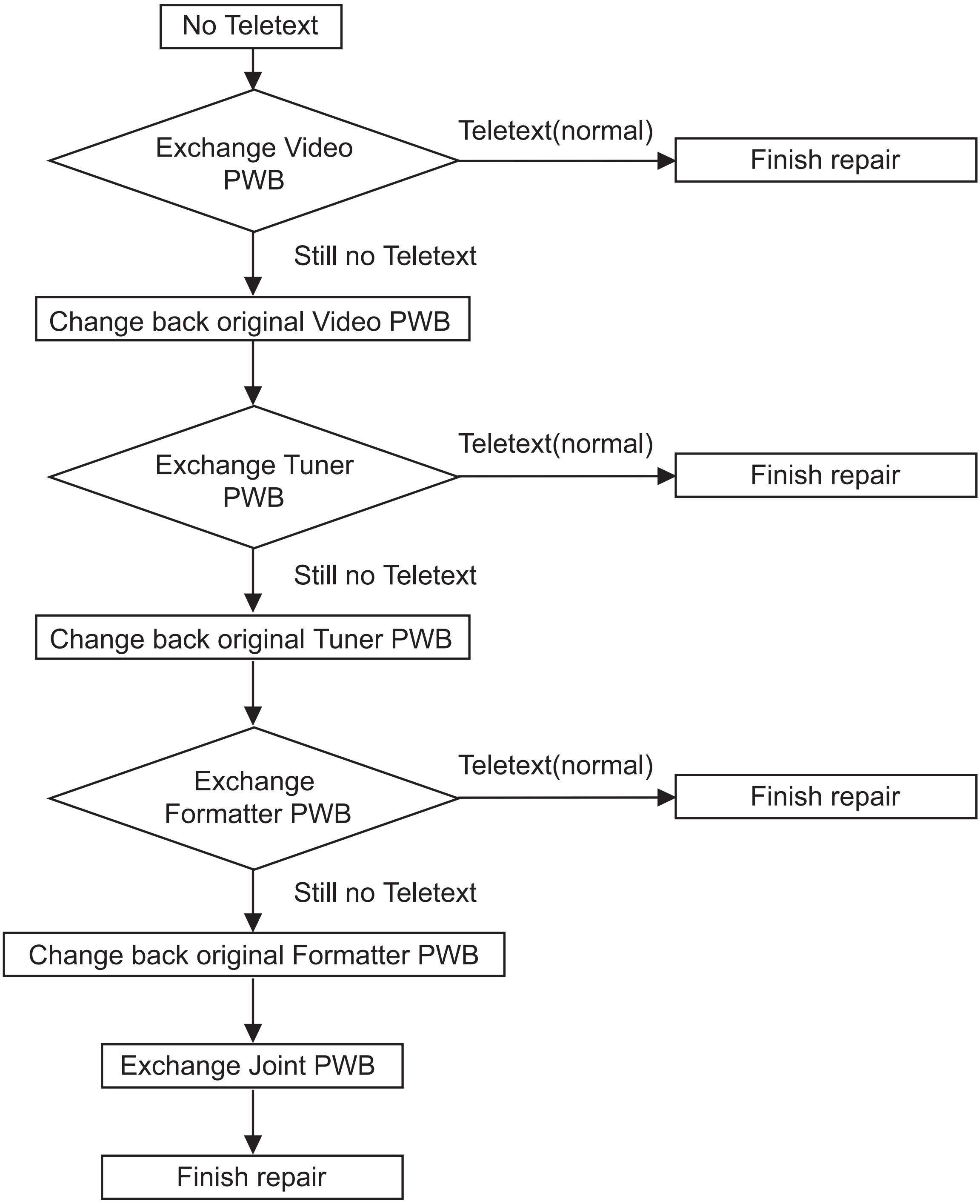
[Power]


Power cannot be turned on (LED does not light)
Is the input voltage applied to Power supply unit? (CN5 [1][3])
No
AC inlet
Power switch
Power supply unit
Sub Power board
Yes
Are the voltages applied to P803 [1][2][5], P804[1],P807[4] and P808 [1][4][8][12]pins of Power supply unit?
No
P803 [1][2] 6V
[5] 33V
P804 [1] 5V
P807 [4~7] 12V
P805 [1][4][5] 5V
[8][9] 12V
[12][13] 10V
Yes
Joint or Formatter PWB
Is the voltage applied to CN6[1] of Power supply unit?
No
Sub power board
Yes
Is the voltage applied to P804[2]pin of Power supply unit high?
Yes(high)
Power supply unit
No(low)
P804 [2] Power on
Joint or Formatter PWB
Picture is displayed. But no sound
Check Speaker terminal and Speaker cord.
Unlocked
Check
No sound
Locked
Are the voltages applied to PAJ1[1][2][6][7] of the Audio PWB?
No
[1] 3.3V
[2] 5V
[6][7] 12V
Are the voltage applied to PJA1[1][2][6][7]?
No
Joint PWB
Yes
Audio PWB
Yes
Are the signals applied to PAF1[2][4] of the Audio PWB?
No
[2] L ch
[4] R ch
Formatter PWB or Video PWB
Yes
Are there signals on Speaker Terminals?
No
Audio PWB
Yes
Speaker

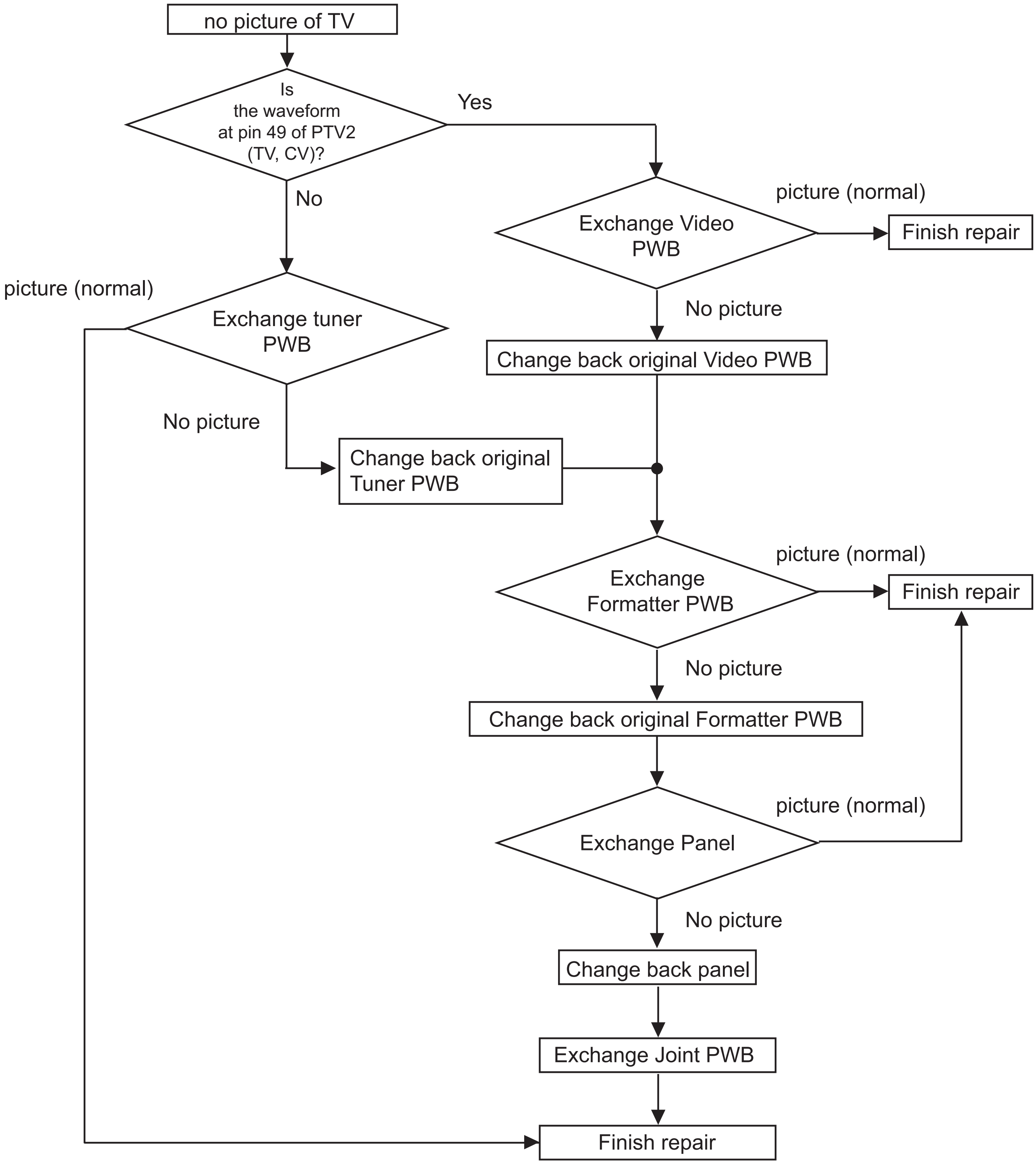
[Power]


Picture is not displayed (LED is lighting)
Is the LED red or green/orange?
red
green/orange
Is it the power saving mode?
Yes
Input signal Cable or Formatter PWB
No
Is Voltage applied to P804[1]pin of the Power supply unit?
Yes
[1] +5V
Power supply unit
No
Is Voltage applied to PJF1[7]pin of the Joint PWB?
Yes
[7] +5V
No
Formatter PWB
Joint PWB
Is backlight lighting?
Yes
No
Is the voltage of PFJ1[1]pin, PFJ2[1][2]pins applied to of the Formatter PWB?
No
Power supply unit
Yes
PFJ1 [1] +10V
PFJ2 [1] +6V [2] +6V
Is the voltage of PFJ2[5][6][9][10][11]pins applied to of the Formatter PWB?
No
Joint PWB
Yes
PFJ2 [5] +3.3V [6] +3.3V [9] +1.8V [10] +1.8V [11] +1.8V
Is the voltage of P806[1]pin on the Power supply unit high?
No(low) <2V
Joint or Formatter PWB
Yes(high) >2V
Is the voltage of P801,P802[1][2][3][4][5]pin on the Power supply unit 24V?
No
Power supply unit
Yes
Inverter unit
Is the voltage of PFJ5[4][7]pins on the Formatter PWB 12V?
No
Power supply unit
Yes
Formatter PWB or Panel Module

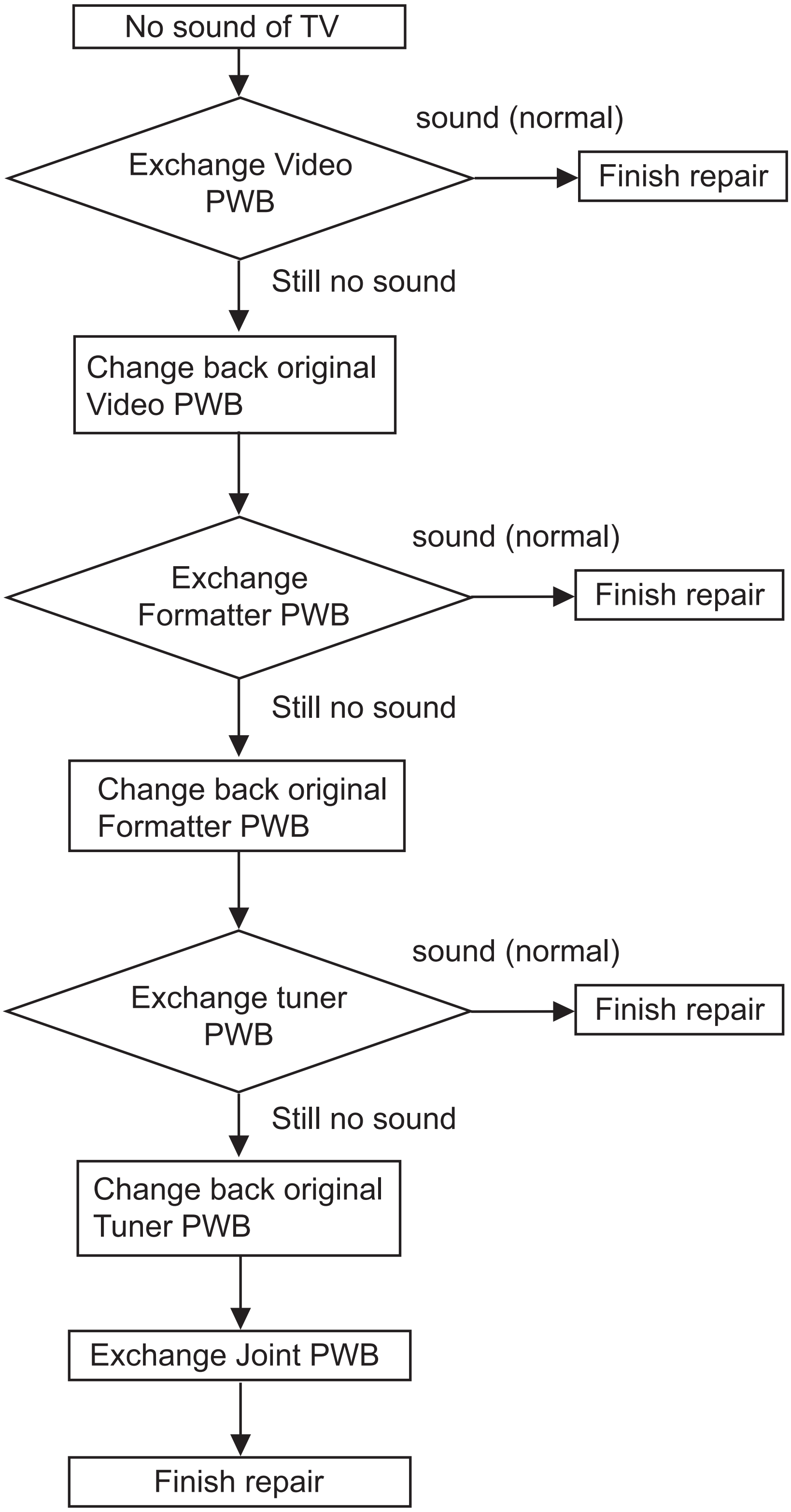
[Teletext Circuit]


No Teletext
Exchange Video PWB
Teletext(normal)
Finish repair
Still no Teletext
Change back original Video PWB
Exchange Tuner PWB
Teletext(normal)
Finish repair
Still no Teletext
Change back original Tuner PWB
Exchange Formatter PWB
Teletext(normal)
Finish repair
Still no Teletext
Change back original Formatter PWB
Exchange Joint PWB
Finish repair

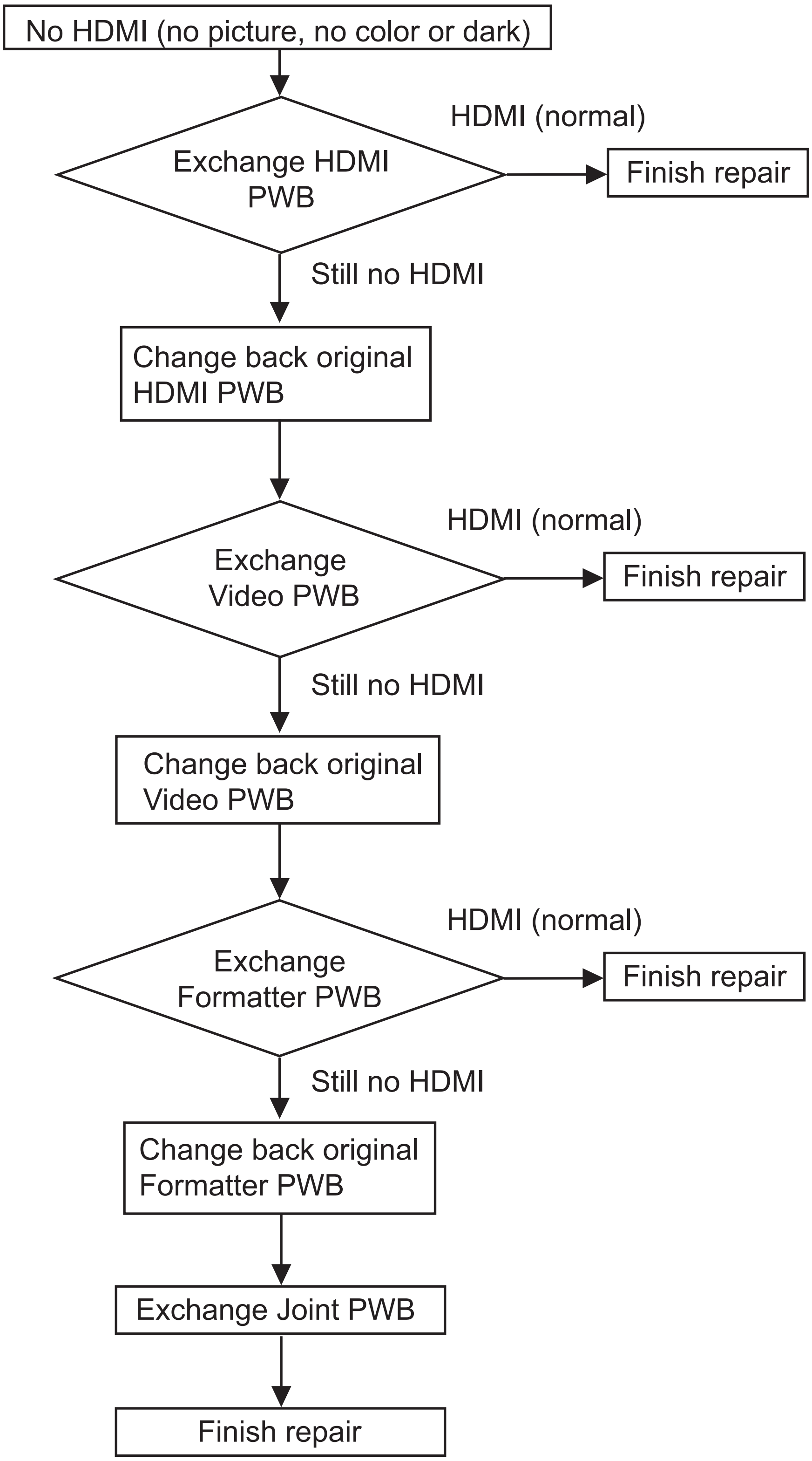
[Signal Circuit]


no picture of TV
Is the waveform at pin 49 of PTV2 (TV, CV)?
Yes
No
Exchange Video PWB
picture (normal)
Finish repair
No picture
Change back original Video PWB
picture (normal)
Exchange tuner PWB
No picture
Change back original Tuner PWB
Exchange Formatter PWB
picture (normal)
Finish repair
No picture
Change back original Formatter PWB
Exchange Panel
picture (normal)
No picture
Change back panel
Exchange Joint PWB
Finish repair

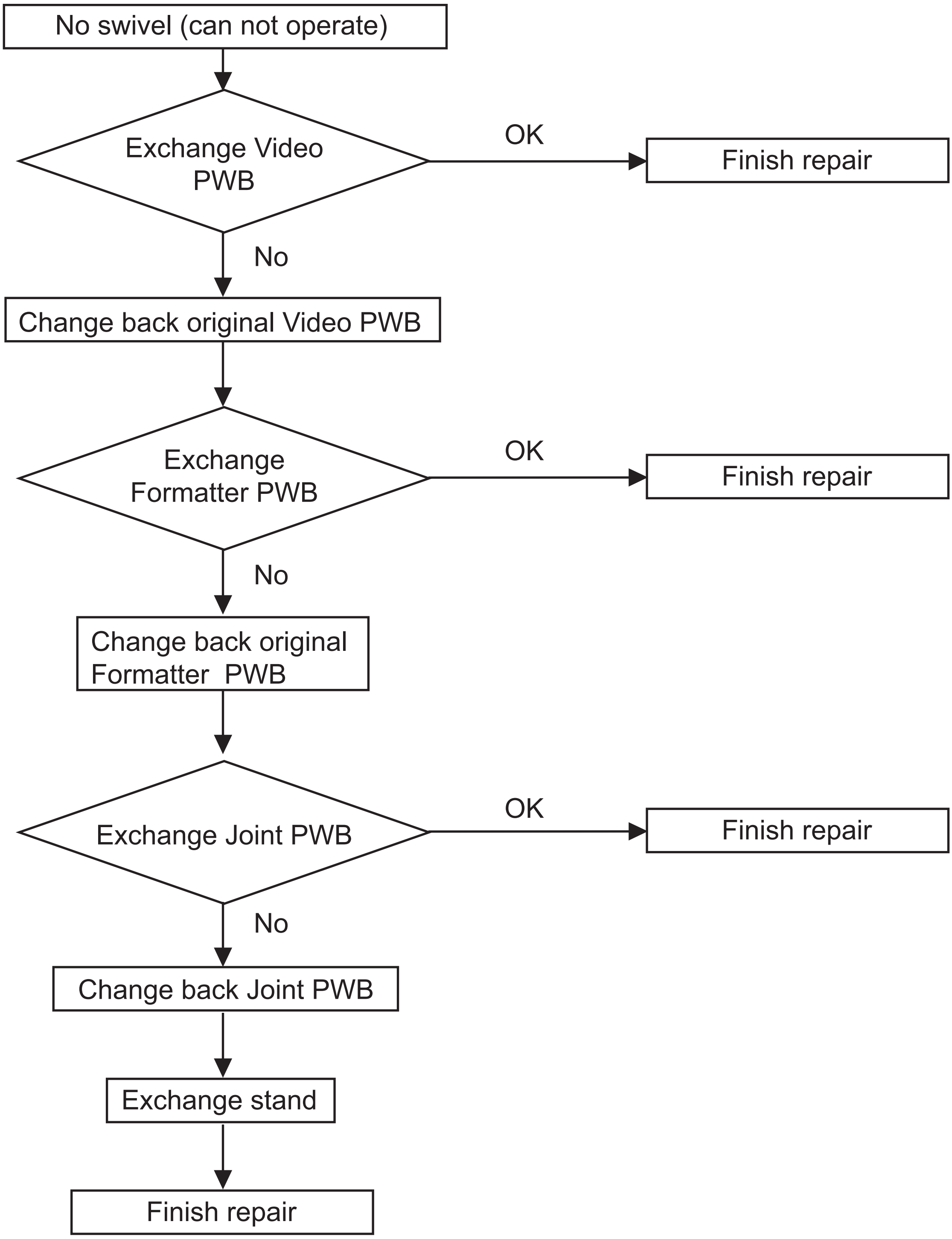
[Sound Circuit]


No sound of TV
Exchange Video PWB
sound (normal)
Finish repair
Still no sound
Change back original Video PWB
Exchange Formatter PWB
sound (normal)
Finish repair
Still no sound
Change back original Formatter PWB
Exchange tuner PWB
sound (normal)
Finish repair
Still no sound
Change back original Tuner PWB
Exchange Joint PWB
Finish repair

[HDMI PWB Circuit]


No HDMI (no picture, no color or dark)
Exchange HDMI PWB
HDMI (normal)
Finish repair
Still no HDMI
Change back original HDMI PWB
Exchange Video PWB
HDMI (normal)
Finish repair
Still no HDMI
Change back original Video PWB
Exchange Formatter PWB
HDMI (normal)
Finish repair
Still no HDMI
Change back original Formatter PWB
Exchange Joint PWB
Finish repair

[Swivel Circuit]


No swivel (can not operate)
Exchange Video PWB
OK
Finish repair
No
Change back original Video PWB
Exchange Formatter PWB
OK
Finish repair
No
Change back original Formatter PWB
Exchange Joint PWB
OK
Finish repair
No
Change back Joint PWB
Exchange stand
Finish repair

8. Seif-Diagnosis Function

● Signal circuit self-diagnosis function

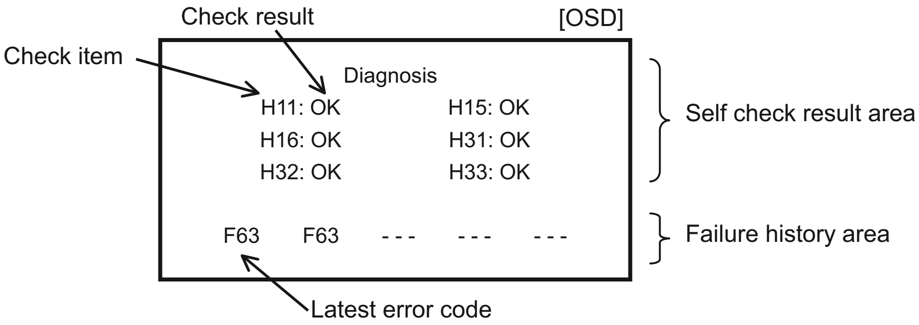
This function is for the failure of the signal circuit, for example the phenomenon as below:
"Sometimes power turns off abnormally." "Sometimes picture disappears abnormally."
To enter to this Self-Diagnosis mode, follow the next steps:

Preparation:

1) The Power Cord should be connected to AC line and the Main Power switch should be turned on.
2) Turn the power off by the SUB-POWER(⏻|) button of the monitor or the remote control.

Procedure:

1) Press the SUB-POWER(⏻|) button and ▲ button on the center of the upper of the monitor at the same time, and keep it for more than 5 seconds after the power turned on.
2) The monitor will be turned on, and it will display On-Screen Display of the Self-check result and the failure history as below.
3) Any operation would cancel the Self -Diagnosis mode.
4) The following table shows the OSD symbols and contents of failure PWB in which failure most probably would be allocated according to the number of blinks.

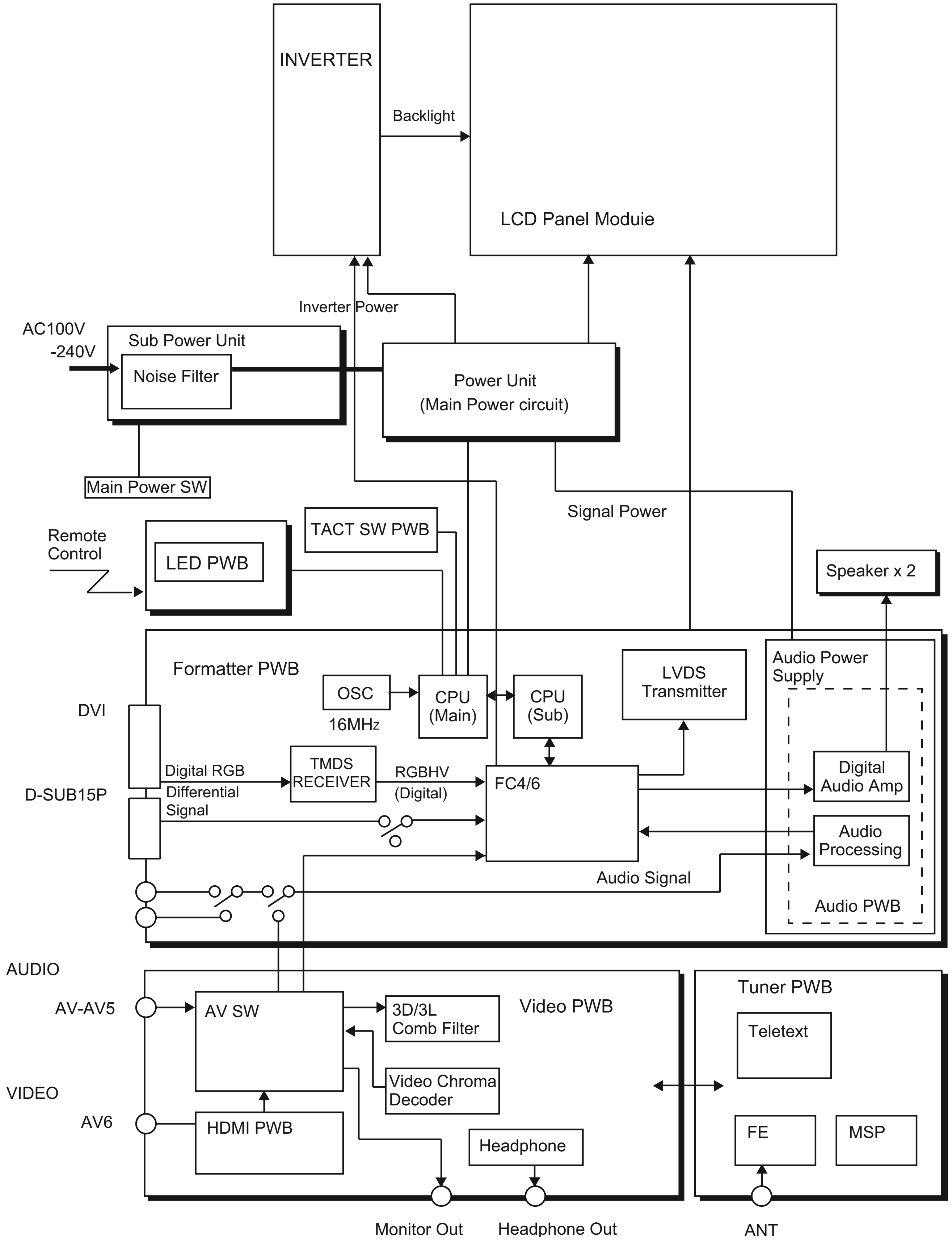


Code	stored up in failure history	Self checking item	Problem	Phenomenon	Cause
C10	–	–	No sync. (Snow noise)	OSD of “ ! Check Antenna ” appears.	No connection of ANT cable Preset tuning is not yet
H11	–	○	Tuner problem	Cannot receive the main signal from antenna	Communication error of U101
H15	–	○	Composite video SW IC problem	Cannot receive picture and audio Cannot change input mode	Communication error of I201
H16	–	○	Component video SW IC problem	No component picture Cannot change input mode	Communication error of I202
H31	–	○	Color demodulator IC problem	Abnormal color Dark picture	Communication error of I501
H32	–	○	Sync. separator IC problem	Unsynchronized picture	Communication error of I601
H33	–	○	3D Y/C separator IC problem	Abnormal color Dark picture / No picture	Communication error of I302
F63	○	–	I^2C-bus latch problem	Cannot store setting data (Ex. Channel, Volume etc.)	SCL3/SDA3 latched up

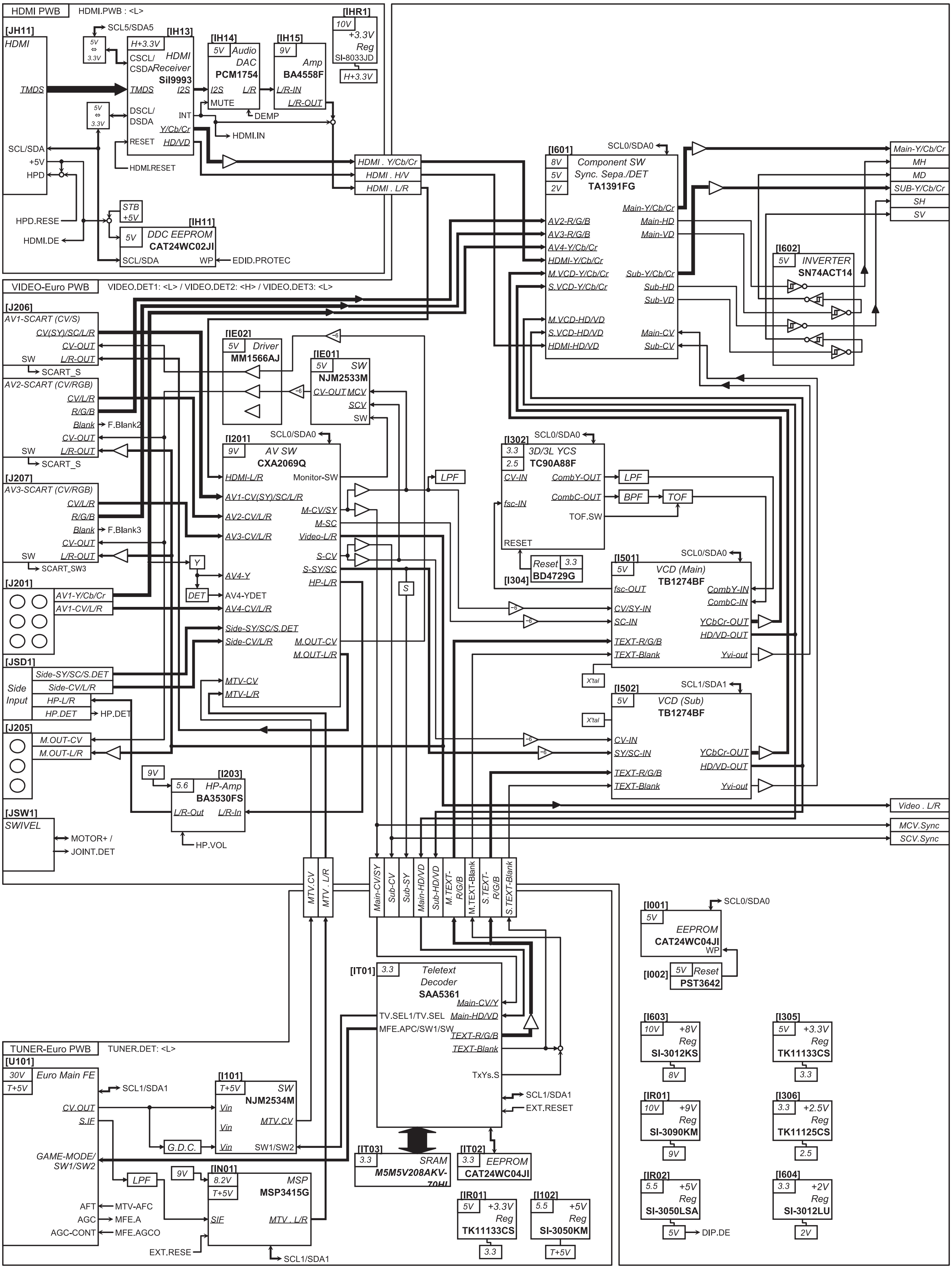
If you clear history of failure, make FACTORY RESET: enter the factory setting mode; press the SUB-POWER(⏻|) button, INPUT SELECT(⇥) button and ▲ button on the center of the upper of the monitor at the same time. And keep it for more than 5 seconds after the power turned on.

9. Block diagram

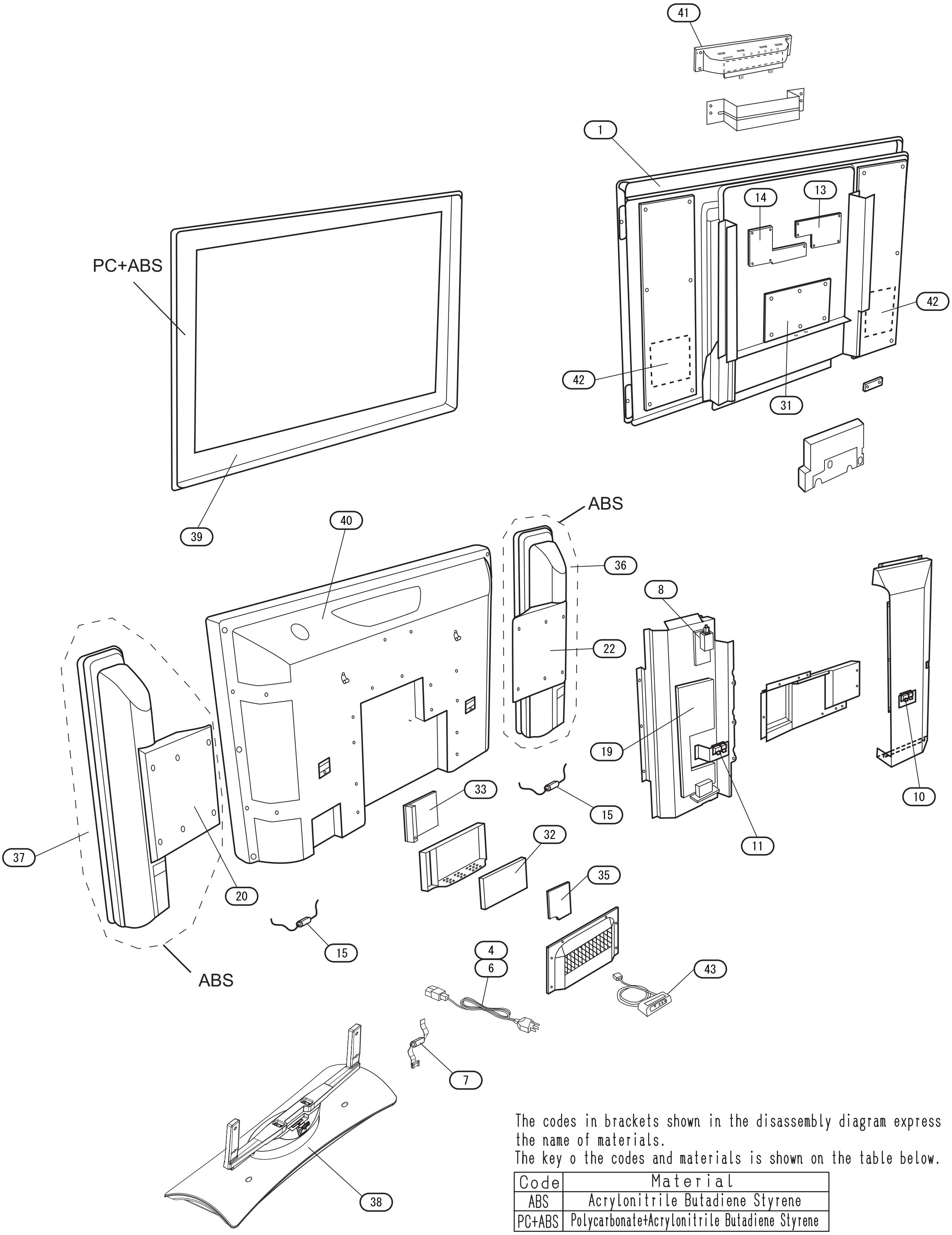
Block diagram 1/2


INVERTER
Backlight
LCD Panel Moduie
Inverter Power
AC100V
-240V
Sub Power Unit
Noise Filter
Power Unit
(Main Power circuit)
Main Power SW
TACT SW PWB
Signal Power
Remote
Control
LED PWB
Speaker x 2
Formatter PWB
OSC
16MHz
CPU
(Main)
CPU
(Sub)
LVDS
Transmitter
Audio Power
Supply
DVI
D-SUB15P
Digital RGB
Differential
Signal
TMDS
RECEIVER
RGBHV
(Digital)
FC4/6
Digital
Audio Amp
Audio
Processing
Audio Signal
Audio PWB
AUDIO
AV-AV5
VIDEO
AV6
AV SW
3D/3L
Comb Filter
Video PWB
Video Chroma
Decoder
HDMI PWB
Headphone
Tuner PWB
Teletext
FE
MSP
Monitor Out
Headphone Out
ANT

Block diagram 2/2


HDMI PWB
HDMI.PWB : <L>
[JH11]
HDMI
TMDS
SCL/SDA
+5V
HPD
HPD.RESE
HMDI.DE
SCL5/SDA5
5V ⇔ 3.3V
[IH13]
H+3.3V
CSCL/ CSDA
HDMI Receiver
SiI9993
TMDS
I2S
DSCL/ DSDA
INT
Y/Cb/Cr
RESET
HD/VD
HDMI.RESET
[IH14]
5V
Audio DAC
PCM1754
I2S
L/R
MUTE
DEMP
[IH15]
9V
Amp
BA4558F
L/R-IN
L/R-OUT
[IHR1]
10V
+3.3V Reg
SI-8033JD
H+3.3V
HDMI.IN
HDMI . Y/Cb/Cr
HDMI . H/V
HDMI . L/R
STB +5V
[IH11]
5V
DDC EEPROM
CAT24WC02JI
SCL/SDA
WP
EDID.PROTEC
VIDEO-Euro PWB
VIDEO.DET1: <L> / VIDEO.DET2: <H> / VIDEO.DET3: <L>
[J206]
AV1-SCART (CV/S)
CV(SY)/SC/L/R
CV-OUT
SW
L/R-OUT
SCART_S
AV2-SCART (CV/RGB)
CV/L/R
R/G/B
Blank
F.Blank2
CV-OUT
SW
L/R-OUT
SCART_S
[J207]
AV3-SCART (CV/RGB)
CV/L/R
R/G/B
Blank
F.Blank3
CV-OUT
SW
L/R-OUT
SCART_SW3
[J201]
AV1-Y/Cb/Cr
AV1-CV/L/R
[JSD1]
Side Input
Side-SY/SC/S.DET
Side-CV/L/R
HP-L/R
HP.DET
HP.DET
[J205]
M.OUT-CV
M.OUT-L/R
[JSW1]
SWIVEL
MOTOR+ /
JOINT.DET
[IE02]
5V
Driver
MM1566AJ
-6
[IE01]
5V
SW
NJM2533M
CV-OUT
MCV
SCV
SW
[I201]
SCL0/SDA0
9V
AV SW
CXA2069Q
HDMI-L/R
Monitor-SW
AV1-CV(SY)/SC/L/R
AV2-CV/L/R
M-CV/SY
M-SC
AV3-CV/L/R
Video-L/R
S-CV
S-SY/SC
HP-L/R
Y
AV4-Y
DET
AV4-YDET
AV4-CV/L/R
Side-SY/SC/S.DET
Side-CV/L/R
M.OUT-CV
M.OUT-L/R
MTV-CV
MTV-L/R
S
LPF
9V
[I203]
5.6
HP-Amp
BA3530FS
L/R-Out
L/R-In
HP.VOL
[I601]
SCL0/SDA0
8V
5V
2V
Component SW
Sync. Sepa./DET
TA1391FG
Main-Y/Cb/Cr
AV2-R/G/B
Main-HD
AV3-R/G/B
Main-VD
AV4-Y/Cb/Cr
HDMI-Y/Cb/Cr
M.VCD-Y/Cb/Cr
Sub-Y/Cb/Cr
S.VCD-Y/Cb/Cr
Sub-HD
Sub-VD
M.VCD-HD/VD
S.VCD-HD/VD
Main-CV
HDMI-HD/VD
Sub-CV
Main-Y/Cb/Cr
MH
MD
SUB-Y/Cb/Cr
SH
SV
[I602]
5V
INVERTER
SN74ACT14
[I302]
SCL0/SDA0
3.3
2.5
3D/3L YCS
TC90A88F
CV-IN
CombY-OUT
LPF
CombC-OUT
BPF
TOF
fsc-IN
TOF.SW
RESET
[I304]
Reset
3.3
BD4729G
[I501]
SCL0/SDA0
5V
VCD (Main)
TB1274BF
fsc-OUT
CombY-IN
CombC-IN
CV/SY-IN
SC-IN
YCbCr-OUT
HD/VD-OUT
TEXT-R/G/B
TEXT-Blank
Yvi-out
X'tal
[I502]
SCL1/SDA1
5V
VCD (Sub)
TB1274BF
X'tal
CV-IN
SY/SC-IN
YCbCr-OUT
HD/VD-OUT
TEXT-R/G/B
TEXT-Blank
Yvi-out
Video . L/R
MCV.Sync
SCV.Sync
MTV.CV
MTV . L/R
Main-CV/SY
Sub-CV
Sub-SY
Main-HD/VD
Sub-HD/VD
M.TEXT-R/G/B
M.TEXT-Blank
S.TEXT-R/G/B
S.TEXT-Blank
[I001]
SCL0/SDA0
5V
EEPROM
CAT24WC04JI
WP
[I002]
5V
Reset
PST3642
[IT01]
3.3
Teletext Decoder
SAA5361
Main-CV/Y
TV.SEL1/TV.SEL
Main-HD/VD
MFE.APC/SW1/SW
TEXT-R/G/B
TEXT-Blank
TxYs.S
SCL1/SDA1
EXT.RESET
[IT03]
3.3
SRAM
M5M5V208AKV-70HI
[IT02]
3.3
EEPROM
CAT24WC04JI
[IR01]
5V
+3.3V Reg
TK11133CS
3.3
[I102]
5.5
+5V Reg
SI-3050KM
T+5V
TUNER-Euro PWB
TUNER.DET: <L>
[U101]
30V
T+5V
Euro Main FE
SCL1/SDA1
CV OUT
S.IF
GAME-MODE/ SW1/SW2
AFT
AGC
AGC-CONT
MTV-AFC
MFE.A
MFE.AGCO
EXT.RESE
[I101]
T+5V
SW
NJM2534M
Vin
Vin
MTV.CV
Vin
SW1/SW2
G.D.C.
LPF
9V
[IN01]
8.2V
T+5V
MSP
MSP3415G
SIF
MTV . L/R
SCL1/SDA1
[I603]
10V
+8V Reg
SI-3012KS
8V
[I305]
5V
+3.3V Reg
TK11133CS
3.3
[IR01]
10V
+9V Reg
SI-3090KM
9V
[I306]
3.3
+2.5V Reg
TK11125CS
2.5
[IR02]
5.5
+5V Reg
SI-3050LSA
5V
DIP.DE
[I604]
3.3
+2V Reg
SI-3012LU
2V

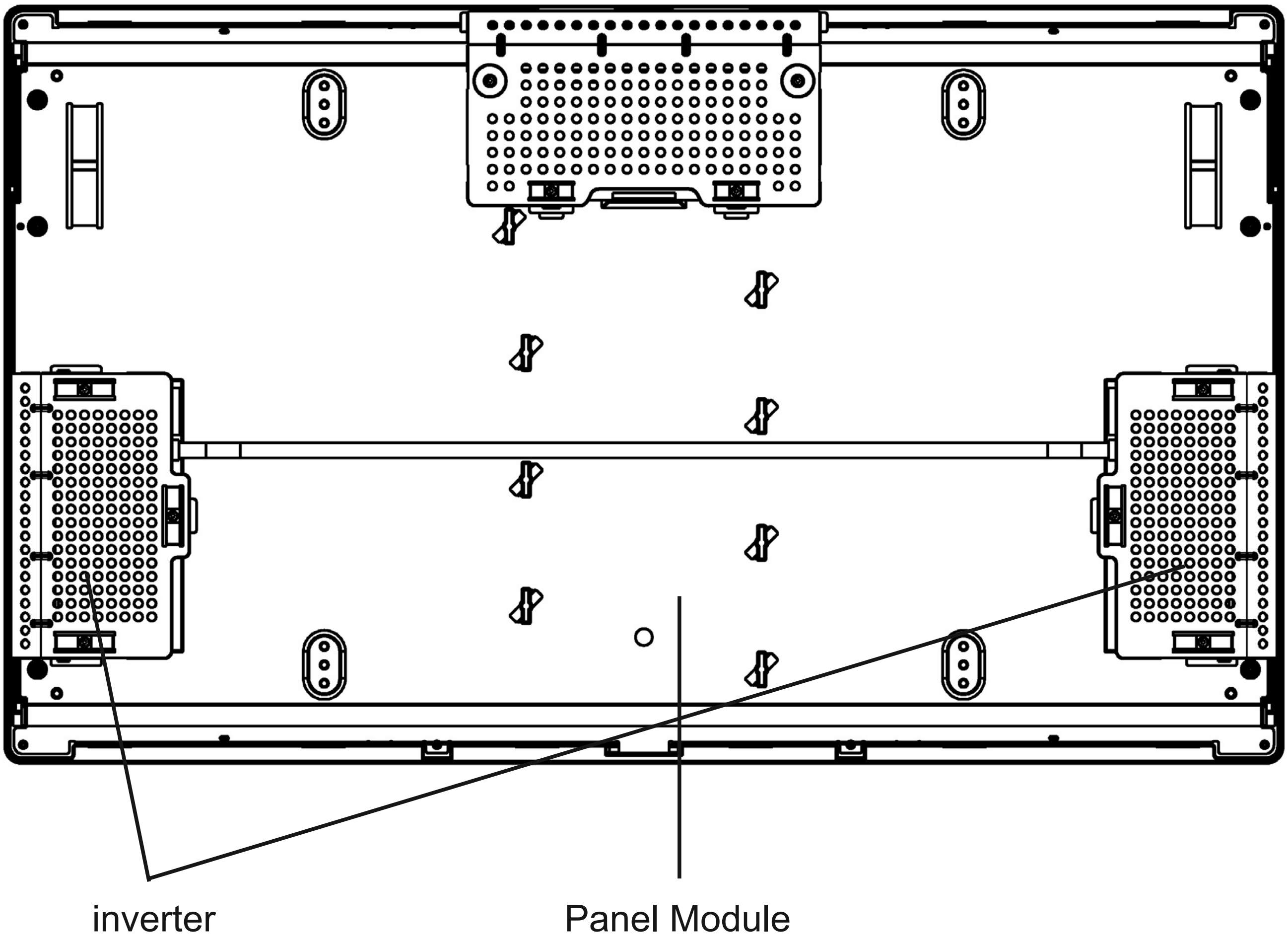
10. Disassembly diagram


41
1
14
13
42
PC+ABS
42
31
ABS
39
40
36
8
22
37
20
19
10
33
15
15
32
11
35
15
ABS
4
6
43
7
38

The codes in brackets shown in the disassembly diagram express the name of materials.
The key o the codes and materials is shown on the table below.

Code	Material
ABS	Acrylonitrile Butadiene Styrene
PC+ABS	Polycarbonate+Acrylonitrile Butadiene Styrene

Panel Module

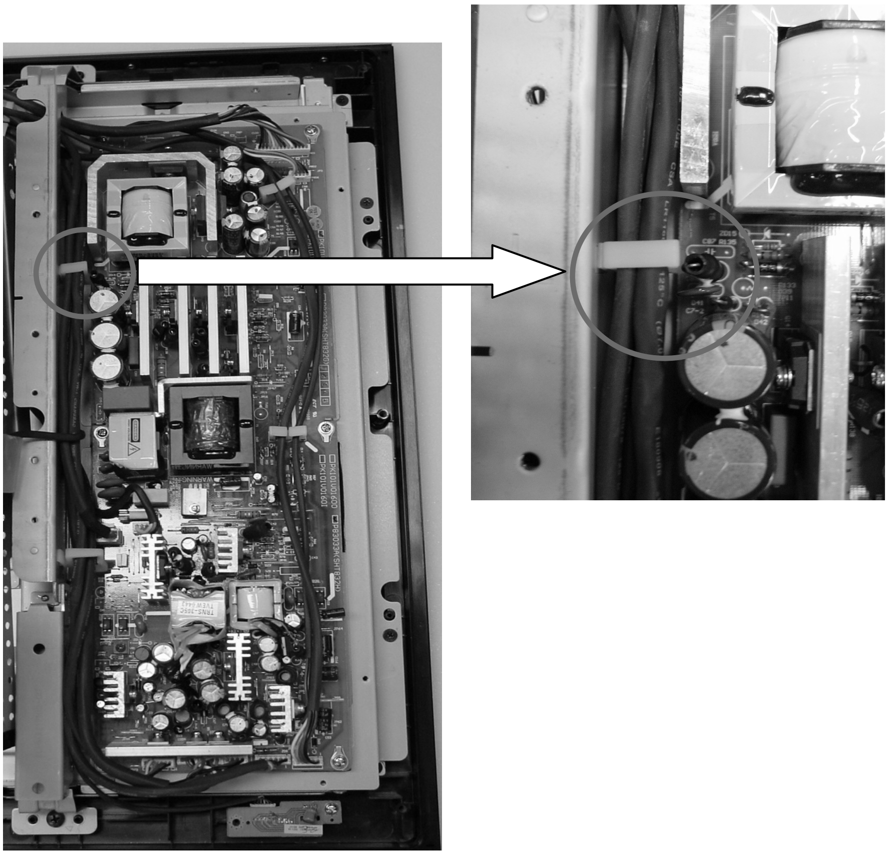

inverter
Panel Module

Spare Part Name	Spare Part No.
Panel Module*	DD00691
Inverter board (one pair)	TP01374

* Panel Module with inverter board

Caution Assembly / Disassembly

Please be careful not to give stress on the power boards R141 and R133 by pushing the cables while dealing with the clamp of cables next to the power boards.



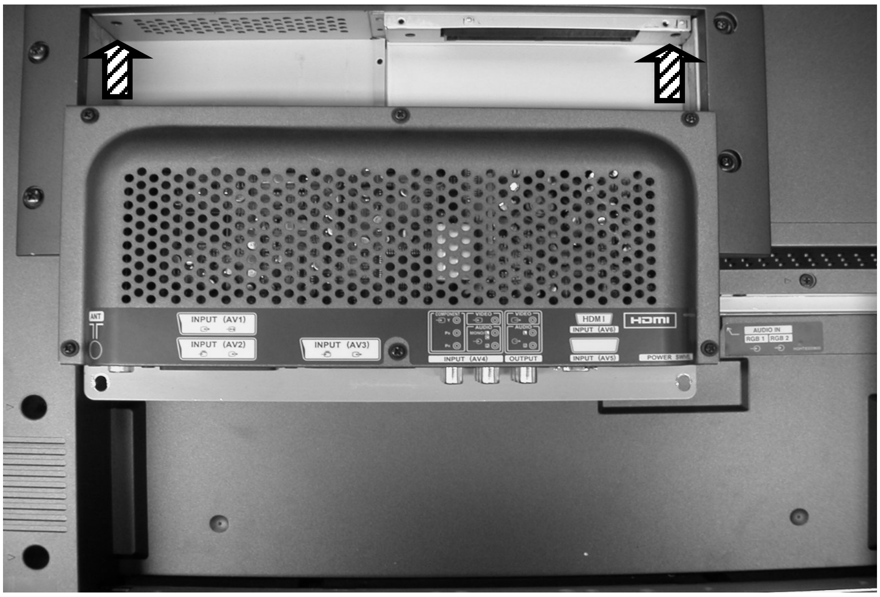
In case of detaching the cable from the clamp

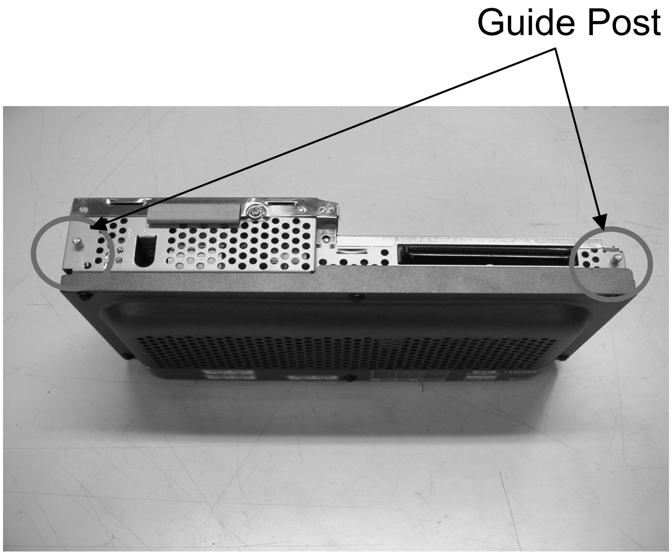
(1) Detach the connector from the power board.
(2) Twist off the screws for the power board , and detach the power board.
(3) Then ,detach the cable from the clamp.

In case of attaching the cable from the clamp

(1) Put the cables through the clamp.
(2) Fasten the power board with screws.
(3) Attach the connector to the connector base of its power board .

Make sure to set the guide posts of unit deep enough into the hole on the in display when inserting the video unit.
In case that it is stuck during the mounting, please readjust the position without pushing it by constraint.


ANT
INPUT (AV1)
INPUT (AV2)
INPUT (AV3)
INPUT (AV4)
OUTPUT
HDMI I
INPUT (AV6)
INPUT (AV5)
HDMI
AUDIO IN
RGB 1
RGB 2

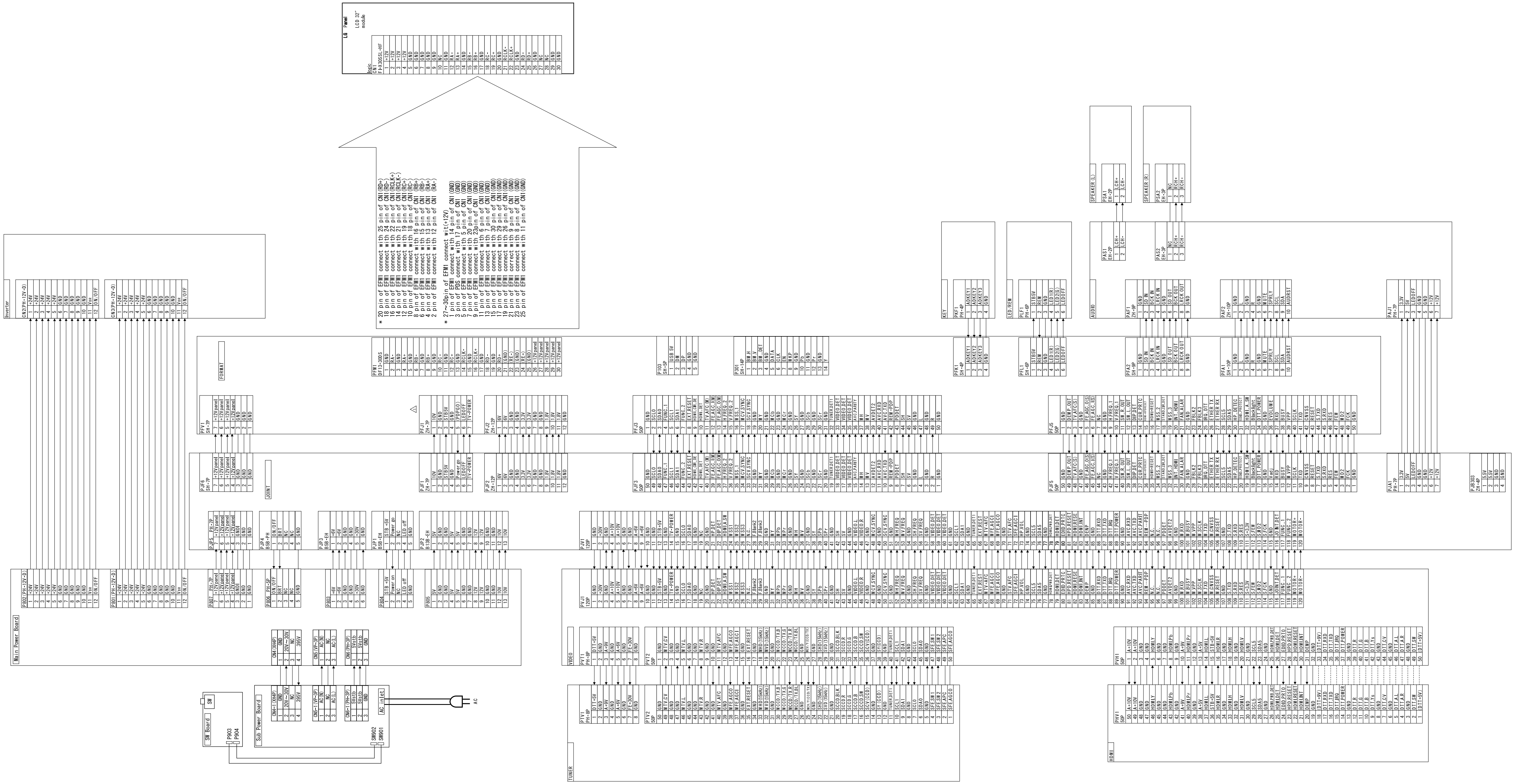


THE UPDATED PARTS LIST

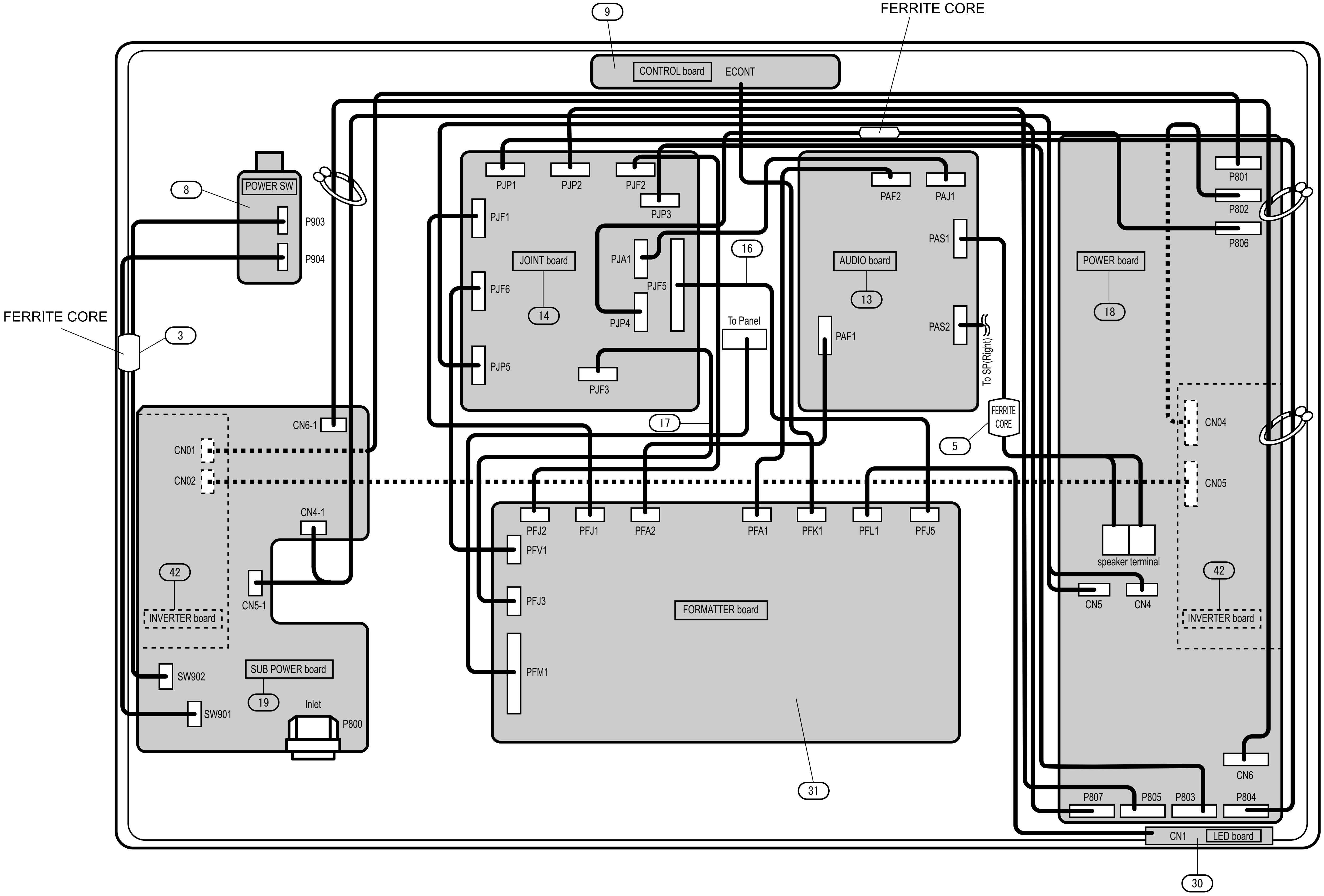
FOR THIS MODEL IS

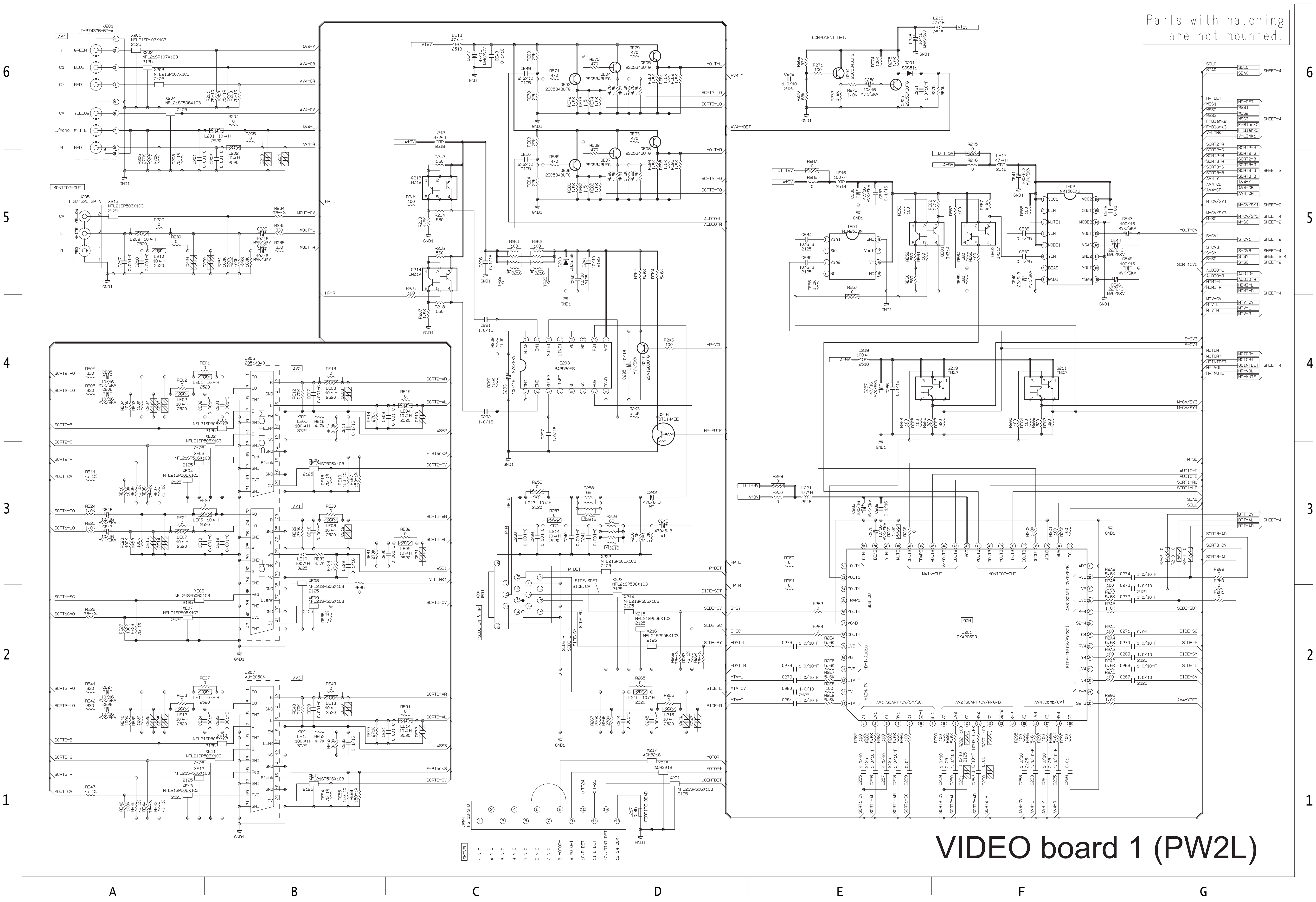
AVAILABLE ON ESTA

12. Connection diagram


LG Panel
Inverter
FORMAT
JOINT
KEY
LED/REM
AUDIO
SPEAKER(L)
SPEAKER(R)
Main Power Board
Sub Power Board
SW Board
SW
AC Inlet
AC
VIDEO
TUNER
HDMI

13. Wiring diagram

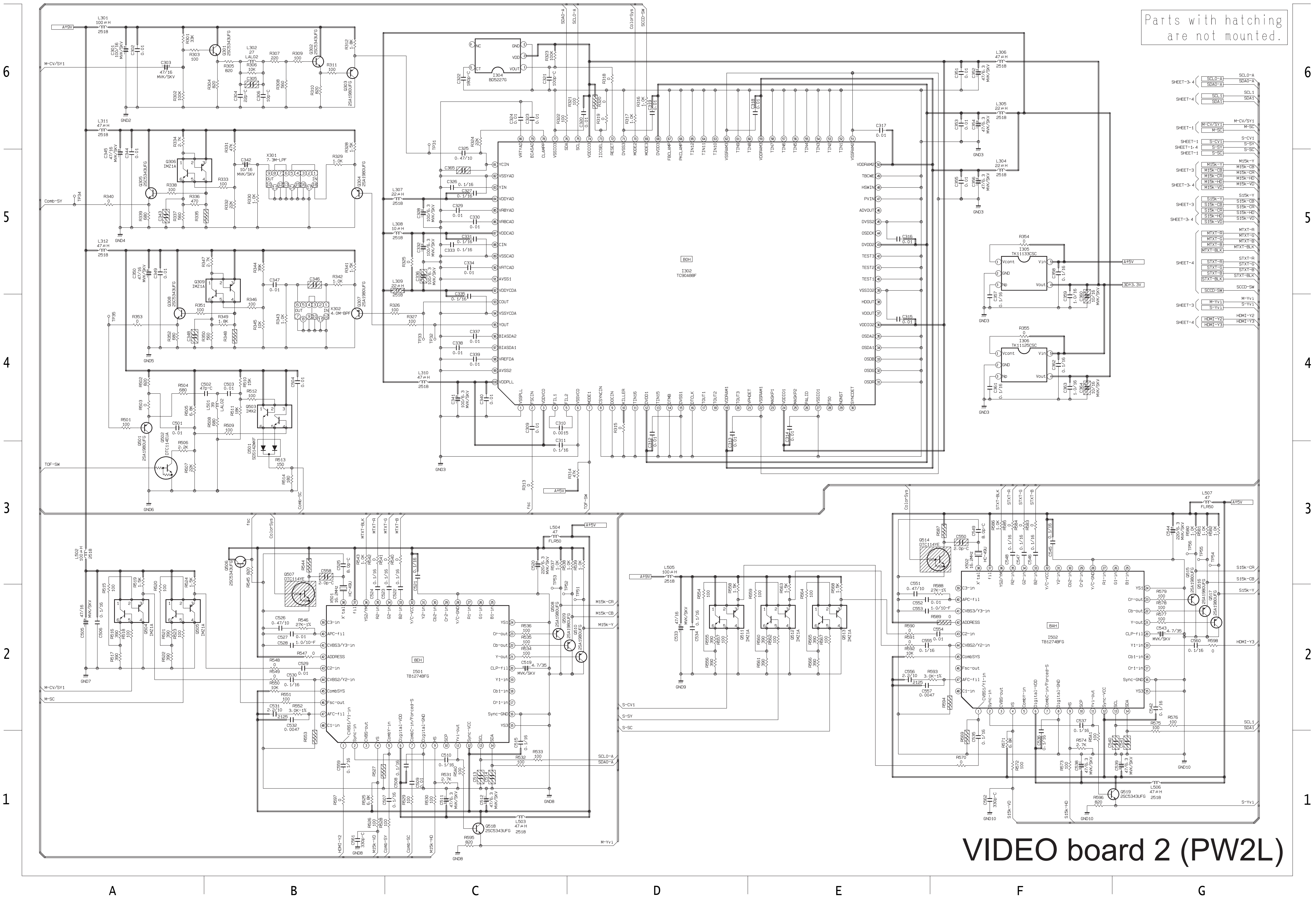

9
FERRITE CORE
CONTROL board
ECONT
8
POWER SW
P903
P904
FERRITE CORE
3
PJP1
PJP2
PJF2
PJP3
PJF1
JOINT board
PJA1
PJF5
PJF6
14
PJP4
PJP5
PJF3
16
To Panel
17
PAF2
PAJ1
PAS1
AUDIO board
13
PAF1
PAS2
To SP(Right)
FERRITE CORE
5
P801
P802
P806
POWER board
18
CN04
CN05
CN6-1
CN01
CN02
CN4-1
42
INVERTER board
CN5-1
SW902
SW901
SUB POWER board
19
Inlet
P800
PFJ2
PFJ1
PFA2
PFA1
PFK1
PFL1
PFJ5
PFV1
PFJ3
FORMATTER board
PFM1
31
speaker terminal
CN5
CN4
42
INVERTER board
CN6
P807
P805
P803
P804
CN1
LED board
30


AV4
MONITOR-OUT
J201
J205
J206
J207
I203
BA3530FS
I201
CXA2069Q
IE01
NJM2533M
IE02
MM1566AJ
J301
SIDE-IN & HP
SWIVEL
A
B
C
D
E
F
G
1
2
3
4
5
6

Parts with hatching are not mounted.

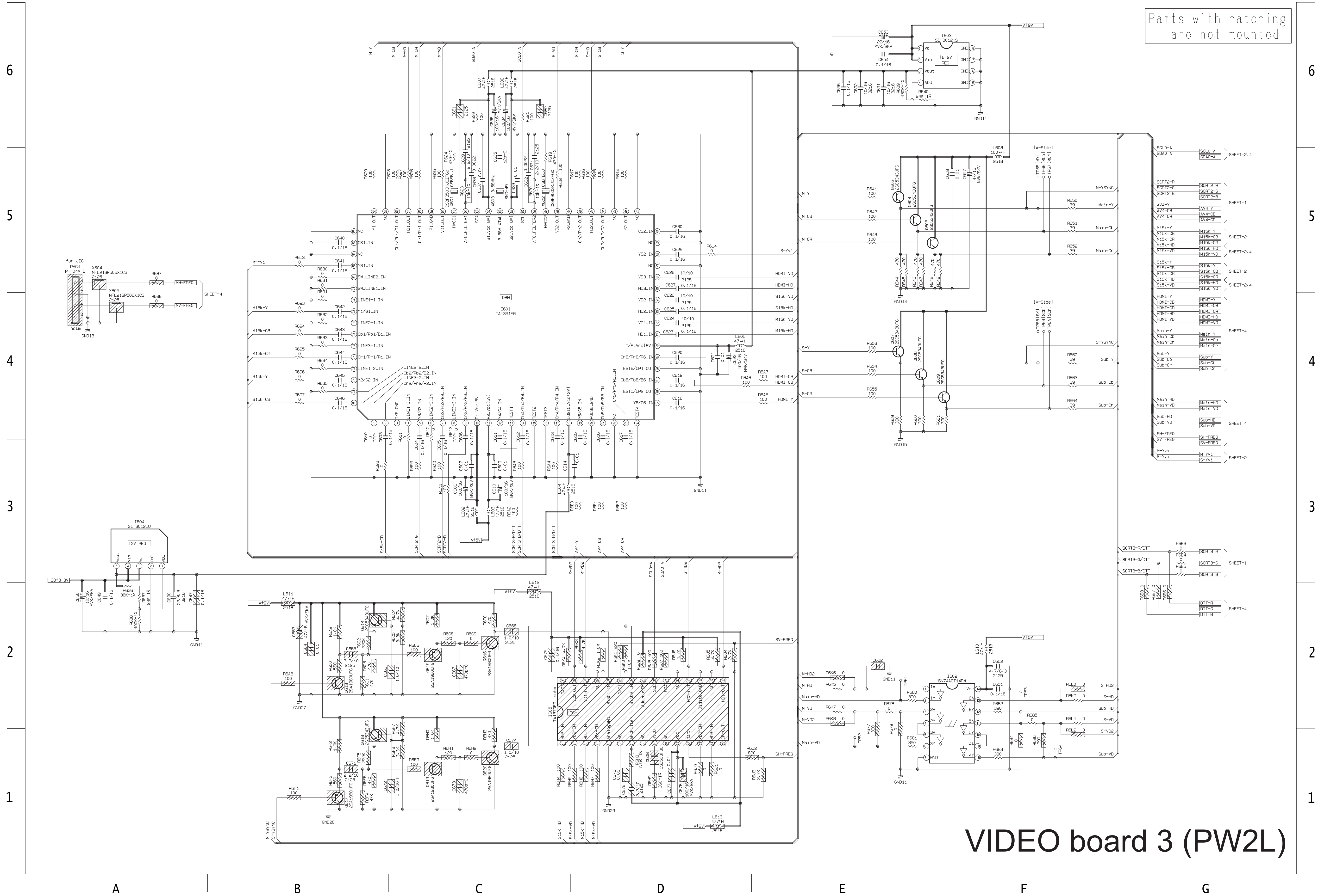
VIDEO board 1 (PW2L)

Parts with hatching are not mounted.

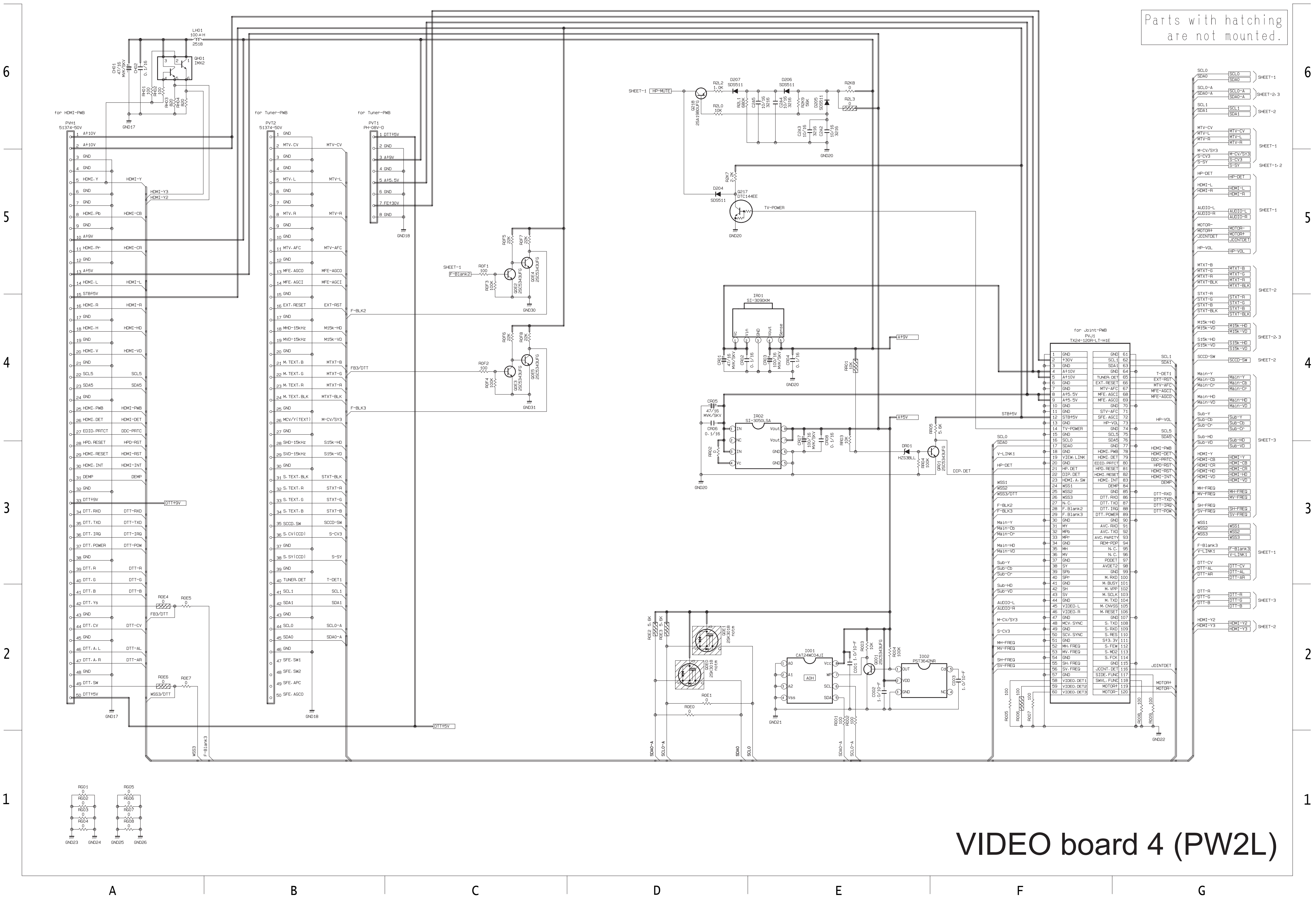


A
B
C
D
E
F
G
1
2
3
4
5
6
I302
TC90A88F
I304
BD5227G
I305
TK11133CSC
I306
TK11125CSC
I501
TB1274BFG
I502
TB1274BFG
X301
7.3M-LPF
X302
4.0M-BPF
X501
16.2MHz
X502
16.2MHz
Q301 2SC5343UFG
Q302 2SC5343UFG
Q303 2SA1980UFG
Q304 2SA1980UFG
Q305 2SC5343UFG
Q306 IMZ1A
Q307 2SA1980UFG
Q308 2SC5343UFG
Q309 IMZ1A
Q501 2SA1980UFG
Q502 DTC114EUA
Q503 IMX2
Q504 IMZ1A
Q505 IMZ1A
Q506 2SC5343UFG
Q507 DTC114YE
Q508 2SA1980UFG
Q510 2SA1980UFG
Q511 IMZ1A
Q512 IMZ1A
Q513 IMZ1A
Q514 DTC114YE
Q515 2SA1980UFG
Q516 2SA1980UFG
Q517 2SA1980UFG
Q518 2SC5343UFG
Q519 2SC5343UFG
D501 SB1140WHF
A+5V
3D+3.3V
M-CV/SY1
M-SC
Comb-SY
TOF-SW
Comp-SC
fsc
ColorSys
SCCD-SW
SDA0-A
SCL0-A
SCL1
SDA1
S-CV1
S-SY
S-SC
M15k-Y
M15k-CB
M15k-CR
M15k-HD
M15k-VD
S15k-Y
S15k-CB
S15k-CR
S15k-HD
S15k-VD
MTXT-R
MTXT-G
MTXT-B
MTXT-BLK
STXT-R
STXT-G
STXT-B
STXT-BLK
M-Yv1
S-Yv1
HDMI-Y2
HDMI-Y3
SHEET-1
SHEET-1・4
SHEET-3
SHEET-3・4
SHEET-4
GND1
GND2
GND3
GND4
GND5
GND6
GND7
GND8
GND9
GND10
TP31
TP32
TP33
TP34
TP35
TP51
TP52
TP53
TP54
TP55
TP56

VIDEO board 2 (PW2L)


Parts with hatching are not mounted.
I601
TA1391FG
I602
SN74ACT14PW
I603
SI-3012KS
+8.2V REG.
I604
SI-3012LU
+2V REG.
I605
TA1370FG
A+9V
A+5V
3D+3.3V
GND11
SHEET-1
SHEET-2
SHEET-4
SHEET-2.4
for JIG
PVG1
PH-04V-D
X604
NFL21SP506X1C3
X605
NFL21SP506X1C3
[A-Side]
1
2
3
4
5
6
A
B
C
D
E
F
G

VIDEO board 3 (PW2L)


for HDMI-PWB
PVH1
51374-50V
for Tuner-PWB
PVT2
51374-50V
for Tuner-PWB
PVT1
PH-08V-D
for Joint-PWB
PVJ1
TX24-120R-LT-H1E
LH01
100μH
2518
QH01
IMX2
CH01
CH02
RH01
RH02
RH03
RH04
GND17
GND18
GND20
GND21
GND22
GND30
GND31
Q218
2SA1980UFG
D207
SDS511
D206
SDS511
D204
SDS511
Q217
DTC144EE
TV-POWER
HP-MUTE
SHEET-1
IR01
SI-3090KM
IR02
SI-3050LSA
A+9V
A+5V
DR01
HZS3BLL
QR01
2SC5343UFG
DIP.DET
STB+5V
F-Blank2
QOE2
QOE3
QOE4
QOE5
2SC5343UFG
F-BLK2
FB3/DTT
F-BLK3
DTT+5V
DTT+9V
IO01
CAT24WC04JI
IO02
PST3642NR
QO01
2SC5343UFG
QOE1
QOE2
2SK3018
SDA0-A
SCL0-A
SDA0
SCL0
WSS3
F-Blank3
WSS3/DTT
RG01
RG02
RG03
RG04
RG05
RG06
RG07
RG08
GND23
GND24
GND25
GND26
SHEET-1
SHEET-2
SHEET-2.3
SHEET-1.2
SHEET-3
A
B
C
D
E
F
G
1
2
3
4
5
6

Parts with hatching are not mounted.

VIDEO board 4 (PW2L)

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